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ABSTRACT

This action research project evaluated a program of activities to increase the engagement of high school students in their learning. The targeted population consisted of freshman, sophomore, and senior students in a middle class community in central Illinois. The lack of student engagement that posed a problem in academic progress was documented by means of parent and student questionnaires, teacher observations, student academic performance, teacher anecdotal records, and teacher/student journal entries. Analysis of probable cause data revealed that the components contributing to the detached approach of students to their learning environment involved motivation. A review of the data revealed that parents and students had unsound priorities and unrealistic perceptions that impacted student educational involvement. A look at traditional school components indicated that static curriculum, lack of student empowerment, and ineffective teaching methods permitted students to be passive learners. A review of solution strategies resulted in the selection of two major strategies for intervention: the incorporation of cooperative learning activities and the use of alternate assessment tools, both utilizing the Multiple Intelligences Theory. The post-intervention data indicated that the aforementioned strategies did result in improved student enjoyment and a feeling of competency, which led to greater student engagement in learning and academic growth. (SD)

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ACADEMIC GROWTH:
STRATEGIES TO IMPROVE
STUDENT ENGAGEMENT IN THEIR LEARNING

Sue C. Naffziger
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ABSTRACT

This study describes a program of activities involving high school students in their learning. The targeted population consisted of freshman, sophomore, and senior students in a middle class community in central Illinois. The lack of student engagement that posed a problem in academic progess was documented by data gathered through parent and student questionnaires, teacher observations, student academic performance, teacher anecdotal records, and teacher/student journal entries.

Analysis of probable cause data revealed that the components contributing to the detached approach of students to their learning environment involved motivation. A review of the data revealed that parents and students had unsound priorities and unrealistic perceptions that impacted student educational involvement. A look at traditional school components indicated that static curriculum, lack of student empowerment, and ineffective teaching methods permitted students to be passive learners.

A review of solution strategies suggested by educational researchers, combined with an analysis of the problem setting, resulted in the selection of two major strategies for intervention: the incorporation of cooperative learning activities and the use of alternate assessment tools, both utilizing the Multiple Intelligences Theory.

The action research project proved that the aforementioned strategies did result in improved student enjoyment and a feeling of competency which led to greater student engagement in learning and academic growth.

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CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

High school learners exhibit inadequate levels of engagement in learning activities that interfere with academic growth. Evidence for the existence of the problem includes teacher observations, student/parent surveys and questionnaires, teacher anecdotal journal entries, and assessments of academic performance.

Immediate Problem Context

The targeted school is located in central Illinois and is a high school district encompassing 95 square miles. It offers a comprehensive educational program for grades 9 through 12 for students from seven feeder schools. The school is a split campus facility with freshmen and sophomores at the west campus and juniors and seniors at the east campus. A distance of approximately a mile and a half separates the two campuses. In conjunction with the east campus facility is a technical education center offering a complete vocational program for the students. Each campus includes a library, a media center, and computer labs. At the present time, a new addition to the east campus is under construction and in the fall of 1998 the school will be consolidated as one campus, including a new pool.

Total enrollment according to the 1996 School Report Card is 2,419 with the following racial/ethnic diversity:

Whites	99.1%
Mexican-American	0.4%
Blacks	0.3%
Asian/ Pacific Islanders	0.2%

Of the total student population, 12.3% are from low income families. The average attendance is 92.1% while the dropout rate is 7.7%. Student mobility is 6.4% and truancy is 1.6%. The average class size is 20.7 students and the graduation rate is 69.4%.

The general school program offers an extensive array of courses for the diverse career paths of college, trade/technical school, military, or the world of work. Course offerings are available from the departments of English, mathematics, science, social studies, vocational education (business, industrial arts, and family and consumer science), cultural studies (art, music, and foreign languages), physical education, health, driver education, Jr. ROTC, and special education. Alternative school is a viable option for at-risk students. Also available to students is a variety of extra-curricular activities such as sports, clubs of varying interests, drama, show choir and music ensembles, and community service organizations.

The students are also serviced by a support staff consisting of seven counselors, three deans, one social worker, one school psychologist, a Student Assistance Program staffed by teachers and counselors, and various student support groups.

There are 114 teachers on the faculty. Of these teachers 98.2% are White, 0.9% are Black, and 0.9% are Asian/Pacific Islander. Males account for 42.1%, and females make up 57.9%. Average teacher experience is 19.1 years with 67.8% holding a bachelor's degree and 32.2% a master's degree. The average teacher salary is $39,496; the average administrator salary is $64,755 (1996 School Report Card).

The pupil/teacher ratio is 21.7 to 1; the pupil/administrator ratio is 302.4 to 1. Operational expense per pupil is $5,295 (1996 School Report Card).

Surrounding Community

The targeted school district, located on the Illinois River 70 miles north of the center of the state, serves an agricultural and industrial area. One fifth of America lives within 250 miles of the metropolitan statistical area of which the district is a part (*Peoria Journal Star* Market Report, 1994). The community itself has a population of approximately 33,000 according to the 1995 Census Report. Of that number, 98.82% are white, 0.16% are Black, 0.17% are Asian/Pacific Islander, and 0.44% are Mexican-American (The 1990 School District Data Book).

The median family income is $31,533, with a per capita income of $12,246. Poverty is of concern to community residents because 7.4% earn less than $5,000 per year; 11% earn $5,001 - $9,999; and 12.2% earn $10,000 - $14,999 (1992 Census Report). Approximately 12% of the working population is employed by a major industrial conglomerate, and another 15% work in outsourcing or supplying that manufacturer. A long history of labor disputes between the company and its unions is a continuing source of community concern. Local downsizing heightens economic anxiety. Other major local employers are a nationally known insurance company, an electrical energy company, the local hospital, and the school districts themselves (Charles H. Renner, Executive Director, Chamber of Commerce, personal communication, May 31, 1997).

The median age of residents is 34.7 years with 75.7% having high school diplomas and 10.5% having a bachelor's degree or more (1992 Census Report). Approximately 60% own their own homes with the median value of $67,000 (Renner). The total assessed valuation is $220 million for the grade school and $275 million for the high school (Renner).

In addition to the two campus high school, educational institutions within the community include six primary (K - 3) buildings, two intermediate (4 - 6) buildings, two junior high (7 - 8) buildings, three elementary parochial buildings, and one facility for special needs students.

Community resources add depth to the educational opportunities in the district. A congressional research center provides hands-on government experiences to all community members, including programs specifically directed toward students. Since the east campus is adjacent to an extensive park district, the two bodies often share such facilities as an ice-skating arena; soccer, baseball, and softball fields; and tennis courts.

Community support goes well beyond shared facilities. Active volunteers in classrooms, booster clubs, and extracurricular activities bolster both school districts. Local businesses are generous with their services and products as well as monetary contributions to student incentive programs. Most notably, in 1995, the community narrowly approved a $16.2 million referendum to fund construction necessary to unify both high school campuses on one site. Construction has already begun and is expected to be completed for occupancy by the 1998-99 school year.

National Context of Problem

Students' lack of engagement in their learning has generated much concern at the state and national levels. Academic apathy is pervasive among students and is seen as "'the most severe and potentially damaging'" problem in American education (Watson, 1996). Dr. William Muloney, Calvert County, Maryland, superintendent of public schools and a member of the National Assessment Government Board, stated that the main complaint of faculty in Calvert County was "'the erosion of the student work ethic'" (as cited in Watson, 1996). In addition, the results of a 1995 Metropolitan Life poll of 20,000 college freshmen found that the majority of surveyed students believed their high schools did not require them to work hard enough (Watson, 1996). Furthermore, students often see school as a place for socializing rather than for learning (Watson, 1996; Wagner, 1993).

A national study conducted by The National Center for Educational Statistics stated that many young people felt school was boring and were bored at least half of their time at school (Hootstein, 1994). Often students have no interest in the academic tasks since they see no relevance between the assigned task and their immediate lives (Bacon, 1993). Newmann (1989) also contended that today's students often fail to feel any ownership or self-determination in their academic tasks and this, too, leads to a lack of motivation to become truly engaged in the "assigned" academic tasks. An additional factor given by Newmann (1989) for lack of student motivation and engagement includes a fear of failure.

Such poor academic attitudes are fostered by an American society that glamorizes easy success to the point that many American youth actually challenge authority, and peer acceptance may depend on academic failure (Hwang, 1995; Schroeder, 1992; Slavin, 1996). Sophfronia found that this "self-destructive pattern of anti-academic student attitudes is the most insidious obstacle to student achievement" (Hwang, 1995).

Lybbert (1994) reported there is a growing percentage of single parent families in which the single parent has all too often lost some parental authority while struggling to earn a living and maintain a household while trying to deal with defiant teens. Adults in single-parent homes and duel income homes are often not around to supervise homework or to be emotionally supportive (Wagner, 1993). The resulting lack of authority by parents has resulted in a lack of respect for parents and other authority figures such as police and teachers. This erosion of adult authority is exacerbated further by an increase in teen independence resulting from an increase in teen employment and car ownership and its resulting support system (Lybbert, 1994).

Another factor influencing teen lack of motivation and academic achievement according to Hwang (1995) is the victim mentality that is prevalent in today's society. All too often students seek help before trying to rely on their own resources to work out their problems or academic tasks. In addition, this self-victimization erodes the principle of individual responsibility for one's actions. Birnhaum in 1991 stated that schools cannot be effective when every failing child is a victim (as cited in Hwang, 1995).

Wagner (1995) also reported today's students' seeming addiction to such passive amusements as watching television, playing video games, and cruising the malls replaces study time and diminishes the attention spans of teens.

Bacon (1993) claimed that often students do not see school as a place for learning or a place as challenging or as granting them enough control to make the work challenging or learning their responsibility. McCombs (1996) found that to be engaged learners, the adolescents' needs for control, competence, and belonging must be met in the classroom. Adolescents need tasks that resemble "real learning tasks that employ complex, challenging mental processes" (Choate & Evans, 1992) and "active involvement and ownership of the learning process" (Fulk & Montgomery-Grimes, 1994).

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

In order to document the extent of student lack of engagement in their learning, student/parent questionnaires were completed, recorded, and analyzed during the first two weeks of the fall semester. Since the curriculum and student make-up of each targeted class are vastly different, all three teacher researchers used their class specific data collections to assess the extent of the problem.

Class A, Living Science I, is composed of freshman and sophomore students of predominately average to below average students who range from fourth to ninth grade reading ability. The class also includes four learning disabled students.

Class B, British literature, is a college-bound senior English class. Although all students plan to attend college, several have 504 designations, including one legally blind teen and several that have reading and comprehension problems. Students with 504 designations have mental conditions or physical conditions or both which substantially limit one or more major life activities.

Class C is a freshman English class of Title I students with reading levels ranging from fourth to seventh grade. At this site Title I students are students who have tested at sixth grade level or less on the spring reading test in their eighth grade year and are in the program with parental consent; these students do not meet the defining prerequisites for special education designations.

In order to document the overall trends of student engagement in all three classes, all students in each class completed the same student questionnaire, and all parents responded to the same questionnaire. These questionnaires were created during the summer of 1997 for the purpose of compiling data on parent and student attitudes concerning components of academic motivation. Summaries of the results of these questionnaires are presented in Figures 2.1 - 2.10.

The comparison of parent and student questionnaires given at all sites at the beginning of the semester presents some telling perceptions of both parents and students concerning attitudes toward school and the school-related learning environment. Figures 2.1 - 2.10 show significant discrepancies between what the parents and what the students feel about school. These questionnaire findings coincide with the conclusions of Wagner (1993), Wang (1995), Lumsden (1994), Lewis (1992), and Slavin (1996) concerning adult support and supervision, family environment, and student perception of effort as major factors in student engagement.

The graphs presented in Figures 2.1 – 2.10 show the questions stated in the student questionnaire form while the parents responded to the same questions formatted in parent form (Appendices A and B).

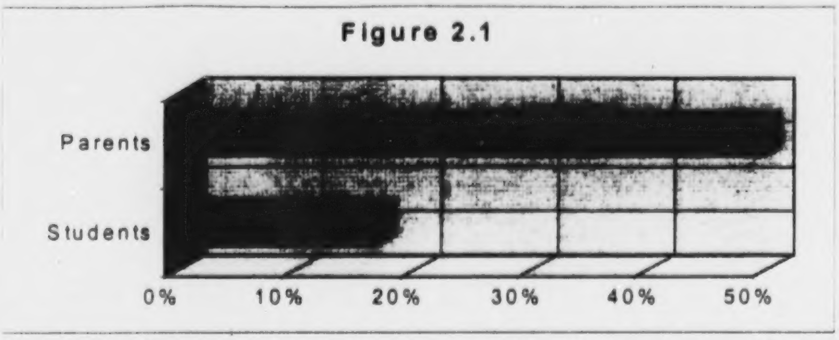

Figure 2.1. Question #1: I tell my parents what I did at school five days a week.

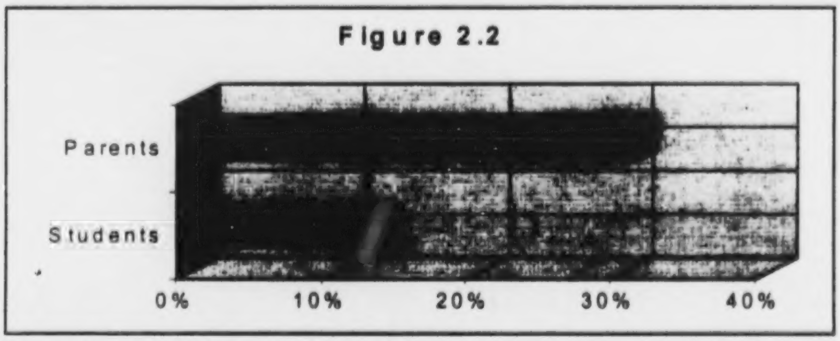

Figure 2.2. Question #6: I spend four or more hours a night watching television/playing video games/socializing with friends.

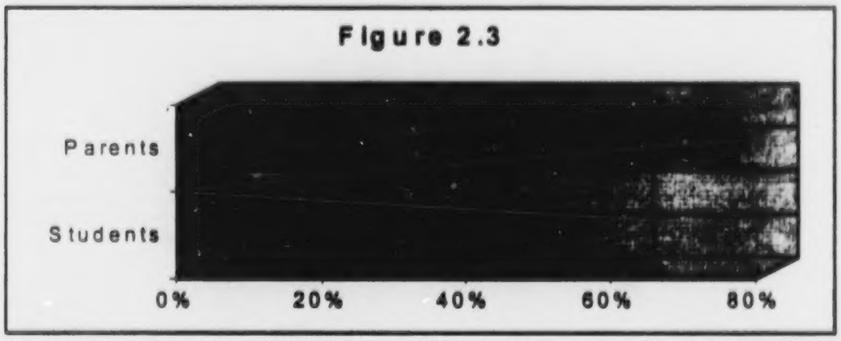

Figure 2.3. Question #12: From what I tell my parents, they think I enjoy school.

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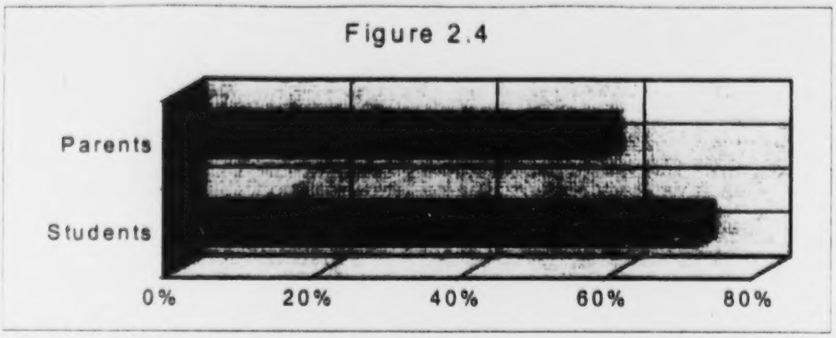

Figure 2.4. Question #16: I am working up to my potential.

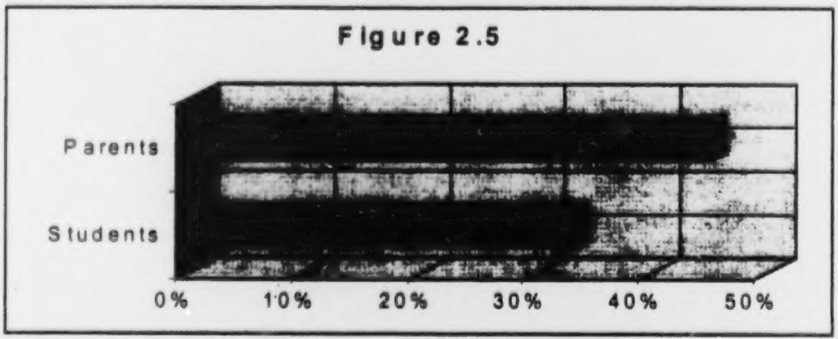

Figure 2.5. Question #27: I enjoy challenging assignments.

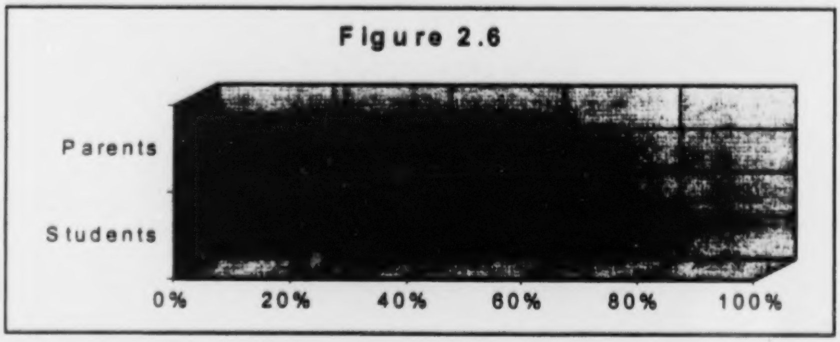

Figure 2.6. Question #28: I complete my homework assignments without being told to do them.

The results of the following questions show that both parents and students consider effort, classroom climate, and teaching strategies to be important to student engagement and academic success (Appendix A). Again, the questionnaire results as shown in Figures 2.7 - 2.10 are supported by the research of Lewis (1992), Brophy (1983), and Wang, Haertel, and Walberg (1993) that shows that student empowerment and a caring classroom atmosphere are necessary components for student engagement and academic success.

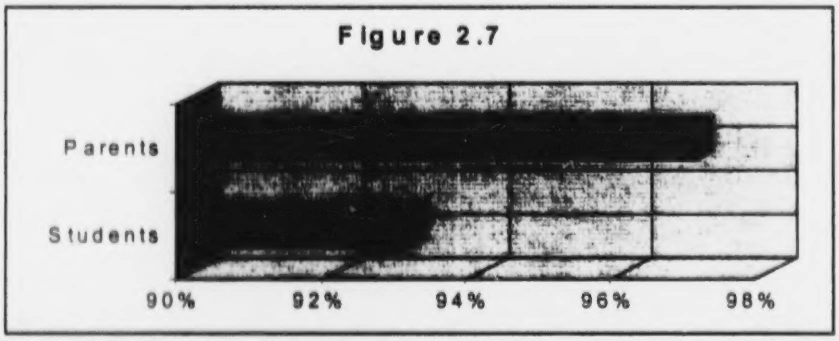

Figure 2.7. Question #19: I feel that when I put forth a good effort, I achieve good grades.

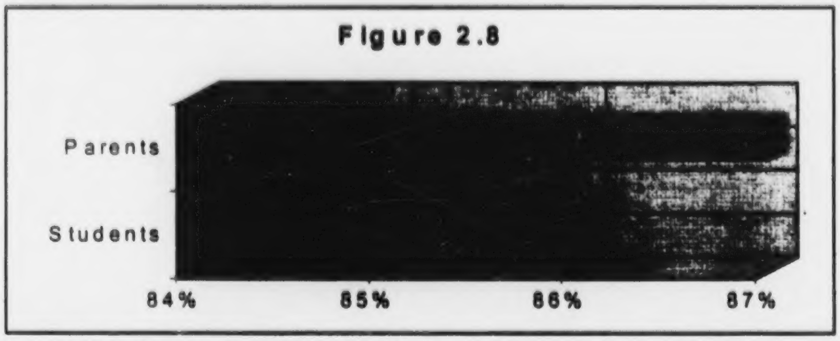

Figure 2.8. Question #22: I feel that my teachers care about my progress.

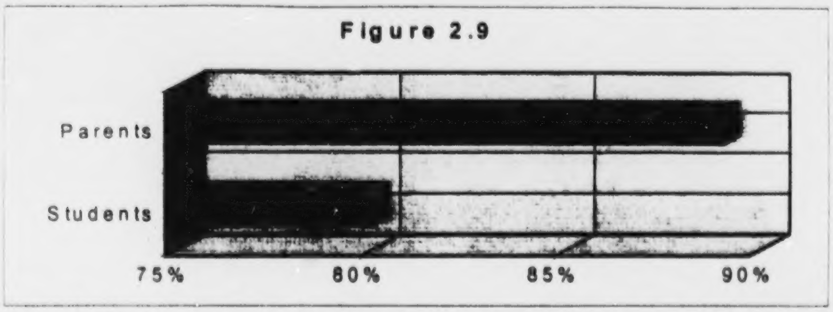

Figure 2.9. Question #24: I feel that group projects are valuable classroom learning experiences.

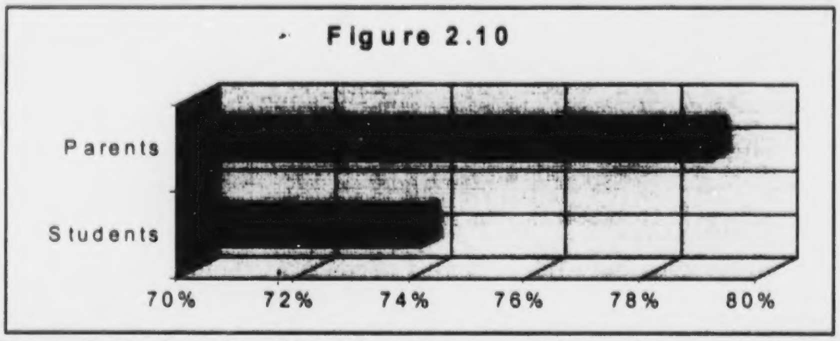

Figure 2.10. Question #30. I feel that I am able to show my individuality in my assignments.

The results of the student questionnaires shown in Figures 2.11 - 2.20 illustrate the targeted students' perceptions about authority, school, and themselves, factors which influence student engagement. These findings correspond with the research of Wagner (1993), Slavin (1996), Lybbert (1994), Lewis (1992), Lumsden (1994), and Newmann (1989).

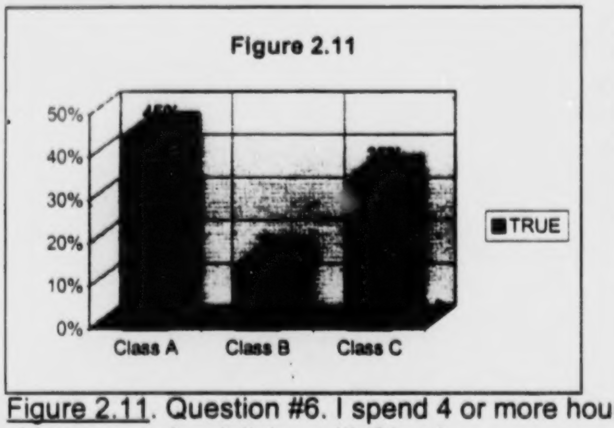

Figure 2.11 shows that socializing is important in teenagers' lives and may take precedence over academic endeavors. Therefore, a lack of socialization in classroom activities may result in a lack of student engagement.

Figure 2.11. Question #6. I spend 4 or more hours a night watching television/playing video games/socializing with friends.

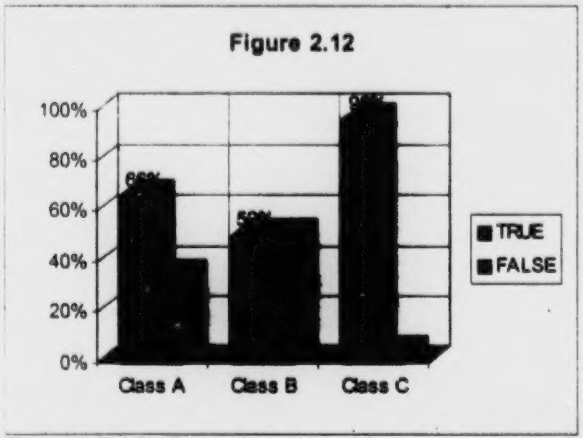

Figure 2.12 indicates that most students feel their grades fairly reflect what they have learned. It is interesting to note that the college-bound students are least likely to feel their grades accurately reflect their academic progress.

Figure 2.12. Question #11. My grades are a fair assessment of what I have learned.

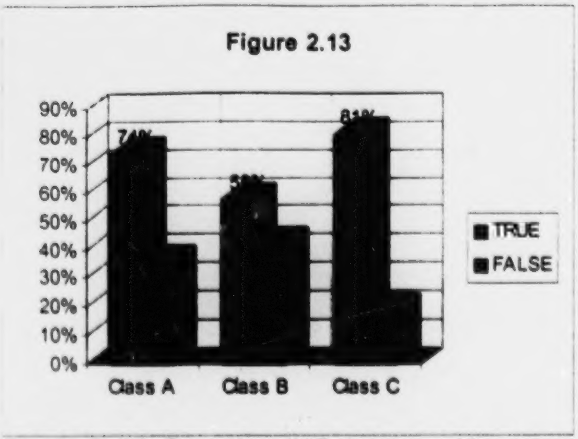

Figure 2.13 shows that the majority of students feel that they are doing their best. Again it is interesting that 40% of the college-bound students do not feel they are working to full potential.

Figure 2.13. Question #16. I am working up to my potential.

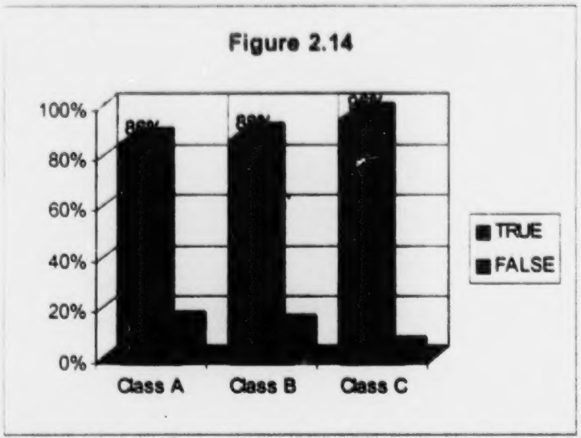

Figure 2.14 shows overwhelmingly that students feel that good effort equals good grades. When students feel they have put forth good effort which has often resulted in good academic success, they will be even more willing to continue their efforts.

Figure 2.14. Question #19. I feel that when I put forth a good effort I achieve good grades.

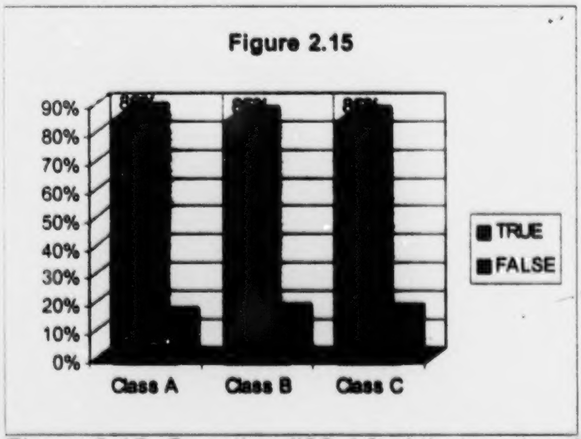

Figure 2.15 also shows overwhelmingly that students feel teachers care about their achievement. Studies have shown that a caring environment is conducive to academic success.

Figure 2.15. Question #22. I feel that my teachers care about my progress.

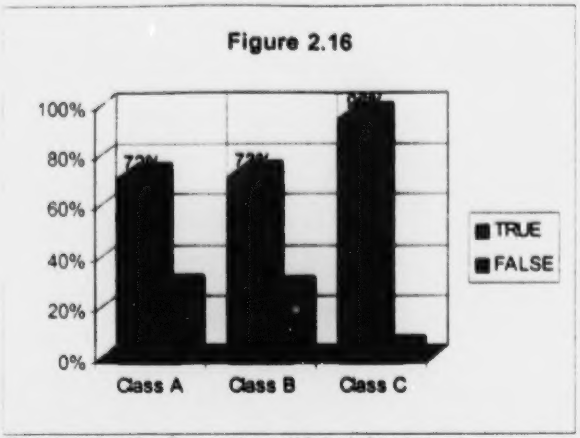

Figure 2.16 indicates that the majority of students at all three sites consider group projects to be valuable learning experiences.

Figure 2.16. Question #24. I feel that group projects are valuable classroom learning experiences.

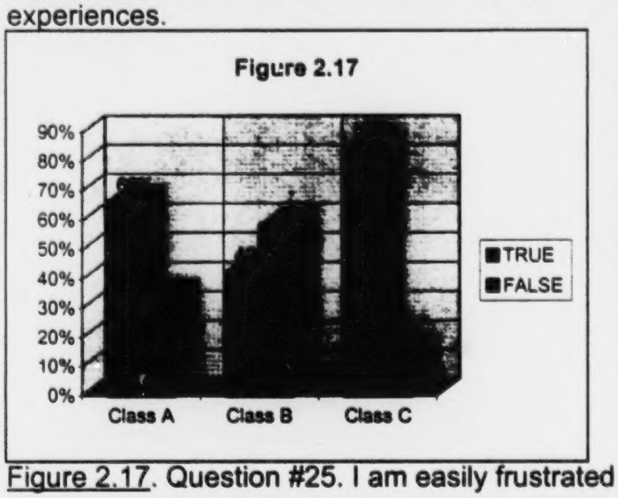

Figure 2.17 shows that the students at the lower achievement levels feel more frustration with assignments than those in the college-bound class. This suggests that past academic success has built self-confidence in the college-bound students and past academic failure has undermined self-confidence in the lower ability students.

Figure 2.17. Question #25. I am easily frustrated with many assignments.

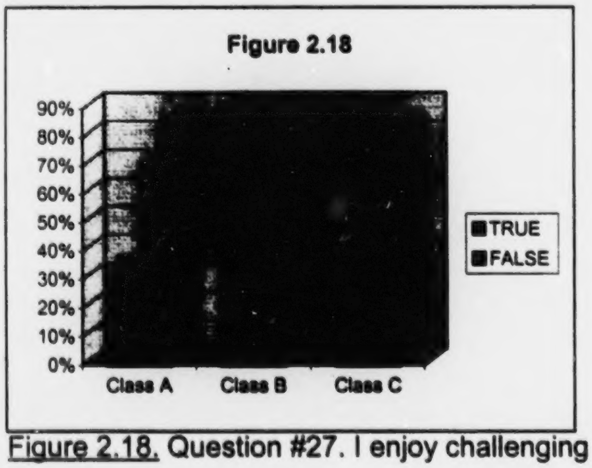

Figure 2.18 shows that the majority of students at the lower achievement level dislike assignments that challenge their performance ability. This suggests that past failures have undermined their academic confidence.

Figure 2.18. Question #27. I enjoy challenging assignments.

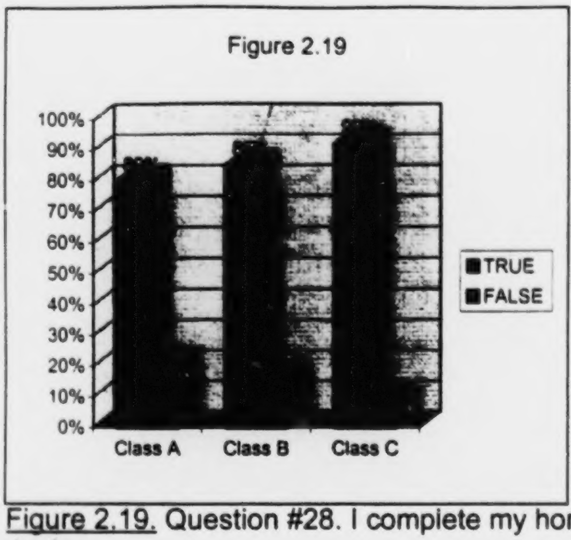

Figure 2.19 indicates that most students "believe" they complete their homework assignments without reminders.

Figure 2.19. Question #28. I complete my homework assignments without being told to do them.

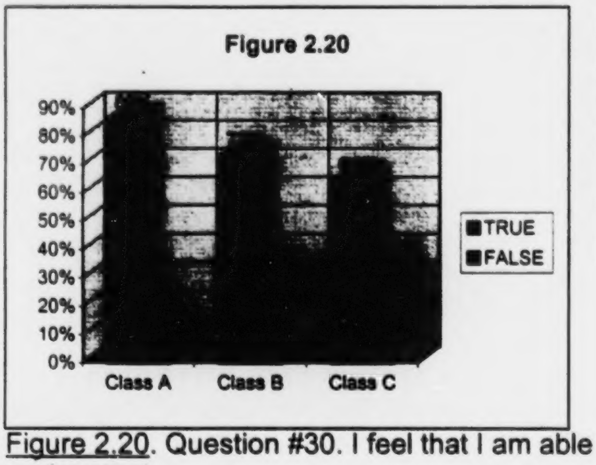

Figure 2.20 shows that most students value the ability to express individuality in their assignments. Consequently, assignments they consider highly mandated and restrictive could negatively affect their academic engagement.

Figure 2.20. Question #30. I feel that I am able to show my individuality in my assignments.

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Probable Causes

Lumsden (1994) stated, "Infants and young children appear to be propelled by curiosity, driven by an intense need to explore, interact with and make sense of their environment" (p. 3). She continued to say that as children grow older their thrill for learning seems to decline as learning often seems to become "drudgery" instead of enjoyment. In fact, as many as one in four students drops out of school before graduating, and even more are in the classroom physically rather than mentally as they fail to take part in the learning experience (Lumsden, 1994).

A review of educational literature presents a multiplicity of probable causes for this lack of student academic motivation, the desire to participate in the learning process. These causes range from societal changes to student perceptions to classroom climates.

According to many authorities, disruptive family relationships are a major factor in lack of student engagement. Wagner (1993) cited the rise in single-parent or dual career homes as one societal change that has brought about a lack of academic motivation. Hwang (1995) cited Kirst (1993) who found that 46% of children are in families in which both or the only parent works outside the home and "60% of all American children will live in a single-parent family for some period of their lives" (p. 484). With only one parent to provide the economic support or with the single parent or both parents dedicated to fulfilling personal career or economic goals, there often is a dearth of adult presence and support in the home. This results in little time for the adult(s) to provide the needed emotional and supervisional support that children need to be academically focused or motivated. Lumsden (1994) added that it is the home environment that nurtures curiosity, exploration, and the message that learning is worthwhile, and when this support is curtailed or absent because of disruptive family problems, then these important intrinsic motivational factors are often not developed. Slavin (1996) concluded that a lack of adult emotional support often can lead to teen pregnancy, gang membership, delinquency, and drug abuse, all of which definitely circumvent academic engagement.

Changing societal values and standards are also cited as causes for student apathy. Wagner (1993), Hwang (1995), Schroeder (1992), and Slavin (1996) argued that in American society there is a glamorization of easy success with many TV programs expounding examples "of people getting rich without seeming to work at all . . ." (Wagner, 1993, p. 698). Wagner concluded that this anti-achievement dogma that glorifies defiance and reduces academic progress is so developed that students' behaviors are governed by this attitude. In fact, it goes so far that often peer acceptance depends partly on academic failure. While it is true that this is a motivating factor in American students, it certainly is a self-destructive pattern in student academic attitudes and performance.

Commercial exploitation is a cultural factor cited by Garbarino (1997) as a social toxin for our children. Garbarino stated that today's young people are constantly being "pelted" by advertisement, TV programming, and movies with messages that promote adult sexuality. He went on to say that children are "physical, even sensual creatures. But they are not sexual unless corrupted by adults . . ." (p.16). Even small children are being dressed as provocative adults. Garbarino declared that such a message fails to differentiate between the special time of childhood and adulthood. Such a message puts stress on young people to garner recognition and affection from being sexual rather than from being academically proficient, and the result is that often they are more engaged in being sexually attractive than in being academically motivated even while being in the school setting.

Wagner (1993) asserted that today's students are addicted to passive entertainment that not only takes up valuable study time but also decreases attention spans. Rosemond (1997) stated that recent findings in the field of brain development indicate that brain cell propagation in the critical formative years from birth to six years is largely a function of the environment. He continued to point out that the average American child watches more than 5,000 hours of TV before he begins first grade. He concluded:

> The picture on a television screen changes, or flickers, every three to four seconds. A child watching a 30-minute TV program isn't paying attention to any one image for longer than a few seconds. Multiply that by 5,000 hours of watching during the years most crucial to brain development and it is hardly far-fetched to suppose that the attention span of the child in question will be compromised. (p. C9)

Wagner (1993) further stated that even when teens are not watching TV or the movies or cruising the malls, they are working more and more hours to support these passive entertainment habits. All of this decreases the time available for academics and the motivation (and possibly ability) to achieve academically. Lybbert (1994) backed Wagner's findings as he stated that teens' increasing independence brought about by their owning cars and working at jobs leads them to defy "institutions such as the schools, police, and their parents with impunity" (p. 85). When students are busy defying educators, they are certainly not engaged in their academic growth.

The victim mentality that is rampant in American society is also considered a causal factor in student lack of engagement. Hwang (1995) explained that the "It's not my fault" mentality allows the students to blame someone else for problems they created, to seek help from others before tackling the problems themselves, and to provide an easy excuse for not exerting effort for self-improvement. Perhaps the most damaging overall aspect of victimology is that it erodes the idea that one is responsible for one's own actions. If students assume no responsibility for their academic progress, then they fail to put forth any or enough academic effort to achieve success.

A third major category of stumbling blocks to student engagement involves the students' perceptions of authority, school, and themselves. As presented earlier, Wagner (1993), Slavin (1996), and Lybbert (1994) found that the erosion of the adult presence and emotional support often leads to a defiance of adult authority, both parental and teacher. Since students' perceptions in these three areas are usually intertwined and one perception in one area overlaps into a similar perception of the other two areas, this in turn leads to students' failure to respond positively in an educational setting.

Students' perceptions regarding the entire educational institution is often a major cause of poor student academic participation and growth. The fact that some students view high school only as a place to socialize with friends (Wagner, 1993) rather than as a place for learning sets the stage for a lack of effort (Bacon, 1993). In addition, this perception is further "corroded" by peer pressure and peer norms emphasizing independence from adult authority, often causing oppositional behavior (Slavin, 1996). This negative peer influence coupled with parental apathy, or even parents' blaming the schools for their children's problems (Hwang, 1995), magnifies the entire problem of poor academic engagement.

Many educational authorities also found that fear of failure, poor self-concept, and low self-expectations impede motivation to learn. Wagner (1993), Lewis (1992), and Lumsden (1994) suggested that students' interpretations of their successes and failures influence their future classroom performance. Lewis stated that young students usually think effort and ability go together and that good ability equals good success. Lewis continued to say that by age 11 students differentiate between these concepts and begin to think ability can limit the effectiveness of effort in classroom achievement. If students lose confidence in their academic ability, then they will have little motivation to put a great effort into learning (Stipek, 1988, as cited in Lewis, 1992). This Attribution Theory implies that when students feel success or failure is due to luck or ability, then they are less motivated to try because they feel they have little, if any, control over their achievement. This theory entails three causal attributions: locus, constancy, and responsibility. Lewis explained that locus refers to the assigning of controlling internal (ability or effort) and external (luck, etc.) variables; constancy refers to whether or not a cause is considered fixed (unchangeable—which is what many teens think about ability) or changeable (effort); and responsibility refers to the extent to which a student's actions are thought to be intentional. Students who think causes are unchangeable will expect the same success or failure in the future, regardless of effort. These students, then, will be likely to expend little effort since they feel that failure was attributed to what they think is beyond their control (Dev, 1997).

Lewis' findings are supported by Brophy (1983) in the Expectancy X Value Theory. This theory hypothesizes that the degree of effort expended to reach a goal equals a function of the value placed on reaching the goal times the expectancy of being able to achieve it if a good effort is made. Again, when students believe effort is somewhat futile, then they fail to become engaged learners largely because failure when students think they should be in control through effort leads to shame and low self-esteem (Lewis, 1992).

Other factors of student perception found to negatively affect student engagement are the lack of relevance of academic tasks to real life and the lack of challenge in the task. McCombs (1996), Bacon (1993), and Wagner (1993) stated that when learners perceive learning to lack meaning to their personal lives or relevancy to real life, then they will "turn off" and be apathetic in their efforts to learn unneeded skills and "facts." Because so many educators continue to instruct traditionally, that is, to be dispensers of facts and grades, many students "tune out" and "turn off." Wagner (1993) declared that "most adolescents consider the work they must do in high school to be completely unrelated to their needs and interests and irrelevant to what is happening 'in the real world'" (p. 698). Dev (1997) and Lowman (1990) indicated that the lack of challenge is also an anti-motivating factor for some students today. They posited that when students feel they do not have to expend much effort to achieve a minimal level of success or mastery, then they begin to simply slide by with little effort. Hunter (1982) explained that to feel successful, one must have to be challenged to "expend effort and have a certain degree of uncertainty about the outcome" (p. 14). Students need to be challenged because they do not feel successful when a goal is achieved with only minimal effort.

Newmann (1989) stated that disengagement is especially a problem for junior and senior high students since their new patterns of social and sexual interests take up a lot of their time when at the same time they need to master knowledge and skills which they consider foreign to their lives. This lack of engagement in academic endeavors is heightened when many of their classes are taught in large groups where their individual needs may not be met (Newmann, 1989). Maltese (1991) indicated that Arndt (1958) stated that a primary need of humans is "to appear before their peers, to have a public image, to announce before the world that they exist as part of a community" (p. 20). Maltese continued to say the traditional instruction with the teacher as the center of attention denies to the students the chance to "make their appearance."

In addition to this, many school systems and the national government are pushing reforms that emphasize norm-referenced tests. Newmann (1989) stressed that these tests may improve engagement for those few who strive for high scores, value the type of knowledge these tests test, and who already are likely to do well on these tests. According to Newmann, this emphasis on norm-referenced standardized tests guarantees that half of all students will score below average. Besides testing mostly for recall of facts, the procedures of such standardized tests do not allow for students to arrive at solutions cooperatively. Furthermore, Newmann stated that multiple-choice formats deny students the opportunity to produce solutions and knowledge in their own words. Newmann concluded as follows:

> These features deny large proportions of students the possibility of competent performance, minimize social support, and diminish student sense of ownership.

> Standardized tests, therefore--and the practice exercises used to prepare for them--can be expected to *undermine* the engagement of many students. (p. 35)

Wang, Haertel, and Walberg (1993) evaluated 11,000 statistical findings on significant influences on learning. Their findings suggested that the two main categories of influence were student aptitude (including gender, academic history, and social, behavioral, and attitudinal characteristics) and classroom instruction and climate. In fact, they found that the two categories had equal impact on student learning. Classroom climate includes most of the actions educators take during all phases of their interactions, academic and social, with their students. Their research basically sums up the influence--positive or negative--teachers and their teaching methods have on students and their learning. When students perceive their teachers and classmates to be caring and responsive; the teachers' instructional methods to be focused, interesting, organized, and fair; and the studied material to be presented as challenging and relevant to real life, then the students will be motivated to expend effort and perseverance. When students' perceptions in these areas are negative, they will not expend effort and perseverance. Wang, Haertel, and Walberg (1993) stated, "Long acknowledged as significant by classroom teachers, effort and perseverance are now regarded by educational researchers as key attributes necessary for developing self-controlled, self-regulated learners" (p. 75).

In spite of the "socially toxic environment" cited by Garbarino (1997) as being poisonous to our youth, classroom teachers can ameliorate these toxic effects by recognizing different learning styles and cognitive abilities and by tailoring instructional practices to meet the students' needs.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

"Engagement in academic work is the students' psychological investment in learning, comprehending, and mastering knowledge or skills" (Newmann, 1989, p. 34). As stated in Chapter 2, inadequate levels of engagement in learning activities interfere with students' academic growth. Some of the causes for this lack of engagement, such as today's socially toxic environment described by Garbarino (1997), including disruptive family relationships, poverty, proliferation of guns and violence in our society, and the commercial advertising exploitation of our young people, are beyond the scope of the teacher to rectify. The challenge for educators, however, is to develop a classroom climate and intervention programs that will overcome some of these "poisonous" influences and address and change some of the negative student attitudes and practices and, in turn, motivate students to be actively engaged in their learning and academic growth. The purpose of this research is to explore the possible solutions for this problem of disengagement and to determine the effects of interventions on student motivation to achieve academic growth.

There are many studies that set forth some underlying principles for motivating students. Newmann (1989) stipulated that five student needs must be met by any educational program for it to motivate successfully the self-engagement of students in their learning: needs for competency, extrinsic rewards, intrinsic rewards, social support, and a sense of ownership. Newmann argued that achieving skill mastery and cognitive understanding are personally rewarding for all people and especially for young adults as they try to find their places in society. And when their efforts to act in a competent way meet with success, they will continue to make other personal investments or risks. Newmann further stated that competency can also be rewarded by good grades, admission to a desired college, honor roll, etc., but for some students "these rewards" have no value. This leads to the third factor Newmann set forth as a prerequisite for motivation: intrinsic rewards. The students must find the studied material and tasks interesting and stimulating. Often this interest is peaked or deflated by the way the material is presented in class or the students' prior experiences with similar tasks or ideas. A fourth necessary ingredient for motivation, according to Newmann, is social support which affects both the extrinsic and intrinsic rewards and the value of any learning activity. Newmann asserted that engagement in learning involves "risk taking, making mistakes and trying again" (p. 46). Consequently, unless the students feel "safe" in making the effort and possibly failing, they may be too fearful to even try to become involved. The final needed ingredient in successful motivation strategies was given as students' sense of ownership in their learning. All people want to feel they have some influence in their endeavors, and Newmann stated that students "must have some influence on the conception, execution, and evaluation of the work itself" (p. 46).

Newmann's motivational theory is supported and enlarged upon by Lumsden (1994), McCombs (1996), Wagner (1993), Fulk and Montgomery-Grymes (1994), Brophy (1983), and Lewis (1992). Lewis stipulated that students' attribution of their academic successes and failures has an enormous influence on their future classroom performance. Her research explained that in a typical academic situation, students credit their success or failure to one of four causes—ability, effort, luck, or the difficulty of the task. Lewis found that students typically attributed their successes or failures to effort or ability. Since many students feel ability is a fixed entity over which they have no control, when they base their failures on this factor, they will feel future educational endeavors are also doomed to failure and therefore will not try. However, when they attribute their successes or failures to effort, then they may be more inclined to expend more effort in the future since they believe the causal factor of effort is both controllable and changeable, and they can understand their responsibility for the success or failure. This essential control component was also discussed by Hootstein (1996) who said that when students' perceptions of their own control in the learning activity increases, then their motivation to learn will also increase.

Brophy (1983) also connected the attribution of effort to engagement in the Expectancy X Value Theory: "The degree of effort that individuals will put forth in attempting to reach a particular goal will be a function of the value they place on reaching the goal and their expectancy of being able to reach it if they do make the effort" (p. 200). This theory also states that the outcome for the task activity must be valued by the student. Brophy went on to say that "students can learn to value learning for its own sake" (p. 201).

Intrinsic motivation is another factor affecting academic engagement. Intrinsic motivation is defined by Dev (1997) as "participation in an activity purely out of curiosity, that is, from a need to know more about something . . .; the desire to engage in an activity purely for the sake of participating in and completing a task . . .; and the desire to contribute" (p. 12). Dev stated that a student who is motivated to learn will find academic tasks meaningful. Dev also found that students' feelings of control of their own learning will lead to increased intrinsic motivation. When students are involved in the decision-making process of learning activities and their assessment, they are empowered and motivated to engage in the tasks.

Barbara McCombs (1997) argued that almost everything a teacher does in the classroom has a motivational effect on students—positive or negative. She stated:

> This includes the way information is presented, the kinds of activities teachers use, the ways teachers interact with students, the amount of choice and control given to students, and the opportunities for students to work alone or in groups. Students react to who teachers are, what they do, and how comfortable they feel in the classroom. (p. [1])

With this in mind, it is evident that teachers can increase student engagement in learning tasks. McCombs contended that motivation to learn is a natural response to learning situations and is enhanced by the following conditions:

> a recognition of the role of thinking and conditioned thoughts in learning and motivation to learn under a variety of conditions, including self-constructed evaluations of the meaning and relevance of a particular learning opportunity; . . . an under-standing [sic] of one's natural agency and capacities for self-regulation; and . .

> . contextual conditions that support natural learning as well as perceptions of meaningfulness and self-determination. (p. [1-2])

What, then, are the strategies teachers can use to increase student motivation to learn? McCombs recommended that teachers support students' opportunities "to participate in making decisions about their educational process and activities" (p. [5]); encourage students to be self-determined, autonomous learners; create a climate of caring and a sense of community with others; and provide opportunities for students to feel competent. There is much research to show that the above remedies can be provided through cooperative learning and alternate assessment opportunities, both of which can effectively incorporate the Multiple Intelligences Theory.

There have been many theories of learning styles formulated over the years. The Swiss psychologist Carl G. Jung presented the concept that the human psyche had "four developed functions: two perception functions, sensing and intuition, and two judgment functions, thinking and feeling" (cited in Shields, 1993, p. 9). In the 1960's Jerome Bruner identified three ways of knowing or Learning Modalities (cited in Samples, 1992). He classified these realms of knowing as iconic (knowing through visual and spatial arts), enactive (knowing through the wisdom of movement), and symbolic (knowing through reason and reductive logic). Sternberg (1994) offered another look at thinking and learning styles or preferred ways of using one's abilities which he labeled as mental self-government. This theory posits the idea that all people organize or govern themselves in one of three ways: legislative (liking to create, invent, and design without much imposed structure), executive (liking to be given structure), or judicial (liking to judge and evaluate).

In 1983 Howard Gardner propounded his Theory of Multiple Intelligences in his book, Frames of Mind: The Theory of Multiple Intelligences. This theory declares that "the human species has evolved to be able to analyze at least seven different kinds of information in the world, ranging from language to music to data about other persons and the self" (Gardner, 1995a, p. 17). This theory involves not a style of learning but actually seven different types of intellectual capacities a person has with no two individuals exhibiting the same profile of strengths and weaknesses. It suggests that all people have at least seven ways of being smart (Ellison, 1992), seven ways to know, perceive, and understand the world (Lazear, 1992).

Gardner (1995b) explained that there is a difference between an intelligence and a style with the following example:

> If a person is said to have a "reflective" or an "intuitive" style, this designation assumes that the individual will be reflective or intuitive with all manner of content, ranging from language to music and social analysis. However, such an assertion reflects an empirical assumption that actually needs to be investigated. It might well be the case that an individual is reflective with music but fails to be reflective in a domain that requires mathematical thinking or that a person is highly intuitive in the social domain but not in the least intuitive when it comes to mathematics or mechanics. (p. 203)

What Gardner propounded in his MI Theory is that individuals have the following seven intelligences with which to learn: bodily-kinesthetic, interpersonal-social, intrapersonal-introspective, logical-mathematical, musical-rhythmic, verbal-linguistic, and visual-spatial.

The importance of the MI Theory to curriculum, instruction, and assessment is that it provides opportunities for *all* students to learn to achieve in their own special ways (Teele, 1996). MI Theory emphasizes students' abilities rather than their disabilities; MI Theory entails not only what a student knows but also what a student can do (Jordan, 1996).

The implications that the use of MI Theory can help activate better student engagement are numerous, and it is certainly an underlying basis for both cooperative learning and alternate assessment. MI Theory addresses the need for competency issue (Newmann, 1989) since it opens up numerous avenues students and teachers can travel in helping all students "be smart" through their strengths in their particular intelligences (Hoerr, 1994). The use of the MI approach allows students to master and use their understanding in the way they are most comfortable. Teaching with multiple intelligences provides multiple paths for students to achieve success and know that they are competent. This feeling of competency will then lead to the students' making a better investment in their learning on future tasks.

Teaching with the MI Theory also naturally gives students some choices and a sense of ownership in choosing their own approach to achieving understanding since they can use some of their strengths in reaching a learning goal. When teachers teach with the MI Theory, they will employ tactics and strategies that allow students to use a variety of methods and tasks to reach understanding. When students are allowed to use their intellectual strengths in learning situations, they naturally will find the task more intrinsically interesting and will assert more effort into mastering the task. This in turn will lead to better understanding and greater success (intrinsic rewards) and a more positive recognition (extrinsic rewards such as good grades or positive peer/teacher recognition) for their achievement.

Cooperative learning (CL) activities in the classroom are also useful tools to increase student engagement in learning. Slavin (1983) defined cooperative learning as a "set of alternatives to traditional instruction systems, or more specifically, techniques in which students work in heterogeneous groups . . . and earn recognition . . .[and] rewards . . ." (as cited in Manning & Lucking, 1991, p. 120).

One way CL strategies are motivating is that such activities are more aligned with "real life situations." According to Slavin (1996), CL can be the perfect method to capitalize on adolescent craving for "responsibility, authority, peer-oriented participation, and adult-like roles" (p. 120). Williams (1996) observed that with the stress associated with today's socially toxic environment, big gains can be made by teaching life skills through CL. Strom & Strom (1996) purported, "When students realize that teamwork is essential for the future, cooperative attitudes and skills become part of their definition of what it takes to be a successful person" (p. 111). Surely, when students see that their education is truly preparing them for their future, then they have a reason to become significantly engaged in the learning tasks. Manning and Lucking (1991) endorsed CL as a necessary technique if educators want to tap academic motivation because they feel traditional teaching methods encourage competition rather than cooperation. They continued to state that evidence "suggests that cooperative learning, when properly implemented, has the potential for contributing positively to academic achievement, social skills, and self-esteem" (p. 120).

Another reason CL strategies are so motivating for students is that they give the students a say, or ownership, in their learning. Teachers in CL classrooms take on new roles as facilitators of learning rather than just sole purveyors of knowledge (Baris-Sanders, 1997). Manning and Lucking (1991) cited Nickolai-Mays & Goetsch (1986) who argued that "[a]nother change in roles includes [teachers'] viewing students as positive forces capable of learning on their own and from one another" (p. 120). This sense of ownership grants to students the responsibility to achieve and thereby increases student concern and participation.

Other academic and social benefits of CL have also been documented by extensive research. Studies by Johnson and Johnson (1985) have shown that CL "promotes the positive attitudes toward the subject matter and toward school in general" (as cited in McManus & Gettinger, 1996, p. 13). The 1984 Dishon and O'Leary study, as cited in McManus and Gettinger (1996), noted that CL activities result in an "improvement in students' social skills, such as initiating interactions, sharing information and ideas, asking questions, following directions, and staying on task" (p. 13). They explained that the results of these studies show that when students work together in a cooperative fashion, "they feel better about themselves and about others in their group, enjoy time spent together, and produce high-quality work" (p. 13). They concurred with Slavin's 1983 and 1990 findings that "feeling liked by peers and feeling academically competent contribute to positive self-esteem among students" (p. 13). Manning and Lucking (1991) asserted CL strategies may increase self-esteem because self-esteem increases when students feel liked by peers and gain academic achievement, and in a typical competitive classroom students are either winners or losers, while in CL activities students see themselves as academically and socially competent classmates.

According to Lowman (1990), "[s]tudents do differ in the amount and kind of motivation they bring to classrooms, and teachers can enhance or reduce it" (p. 136). According to research done by Deci (1975) and Deci and Ryan (1985), "individuals are moved by . . . two large sets of forces, the extrinsic coming from external sources and often tangible and intrinsic coming from within, usually in the form of intangible personal satisfactions, such as feelings of self-determination and competence" (as cited by Lowman, 1990). Lowman cited the Benware and Deci study of 1984 that connects CL with intrinsic satisfaction. In this study students who were told they would have to teach the assigned material to their peers "were more intrinsically attracted to learning the content [than those who were only told they would be tested over it]. . . . Expecting to apply what they were learning apparently increased students' focus on higher-level learning objectives as well as their intrinsic interests" (p. 130). Lowman interpreted this research by saying, "[R]educing instructors' external control [e.g., tests] increase[s] intrinsic desire" (p. 136). He concluded:

> Most long-term objectives for students involve independent behavior based on internal satisfactions. . . . Thus, faculty members have both a responsibility and an opportunity to encourage the growth of intrinsic satisfactions and the rewards of learning in students. . . . Instead of complaining about unmotivated students, faculty members should examine their teaching and grading practices and strengthen those that encourage intrinsic motivation. (Lowman, 1990, p. 136)

CL activities encourage intrinsic motivation because they give students power and responsibility in their learning.

Cooperative learning activities are also motivating in the classroom because they allow individual students to make their own unique contributions to the group activity and achievement. In CL activities individual students have specific tasks within the group. These tasks may utilize any one or several of the seven intelligences purported by Gardner (1995a). Therefore, engagement will be enhanced because each student is able to use individual abilities (Jordan, 1996). MI Theory supports and compliments CL procedure since, according to Teele (1996), it allows all students to achieve with their own special talents or abilities. Williams (1996) supported this idea by asserting that these individual strengths and weaknesses may explain why a student achieves well in one class and "tunes out" in another. Williams purported CL allows students "to utilize their strongest talents across the curriculum and it also promotes ways of improving their weaknesses" (p. 39). Whenever students are allowed to be successful in their own individual ways or strengths, their feelings of competence and self-esteem are enhanced and motivation for continued engagement is promoted.

Brown and Palincsar (1989) also propounded the importance of CL in aiding students' achievement and feelings of competence. They referred to findings of Piaget, Vygotsky, and Binet who held that groups of peers with opposing opinions and ideas working together would cause the individual members to consider multiple perspectives. This shared expertise would furnish much cognitive support as each individual could scaffold ideas off the others to the cognitive development of all. Vygotsky's theory that "social interaction creates zones of proximal development that operate initially only in collaborative interactions" was cited by Brown and Palincsar (1989, p. 409). Brown and Palincsar continued to assert that "social settings provide an audience for an individual's attitudes, opinions, and beliefs, and audiences can request clarification, justification, and elaboration" (p. 403). Brown and Palincsar concluded that this guided learning is a great aid to developmental change since what the individuals witness in collaborative settings eventually becomes individual cognition. They stated, "Social collaborations [indeed] lead to independent competence" (p. 397).

Maltese (1991) held that "in order for most of us to learn anything we must be engaged with the material" (p. 21). CL strategies promote this engagement—students learn by *doing*. This idea is not new as many subjects are already "hands-on." It is a teacher's job to make subject areas "minds-on" as well, and cooperative learning strategies may be the answer. CL strategies allow students to "own" their learning, and Maltese stated this is critical. He feels the students must have "authority" over the material before they can make it their own. Maltese went on to quote McQuade (1986): "'It is not the teacher's job to cover the material. It is the teacher's job to get the students to uncover the material'" (p. 22).

Since teaching to enhance or use students' multiple intelligences and using cooperative learning tools are often quite different from so-called traditional methods, teachers must also develop different methods of assessment. Alternate assessments are another important strategy in engaging students in strong investments in their learning.

Alternate assessments are defined by Herman, Aschbacher, and Winters (1992, p. 2) "'to mean variants of performance assessments that require students to generate rather than choose a response'" (as cited in Burke, 1994, p. xviii). Archbold and Newmann (1988, p.1) add to this definition by stating that an authentic assessment is "'[a] valid assessment system [that] provides information about particular tasks on which students succeed or fail, but more important, it also presents tasks that are worthwhile, significant, and meaningful—in short, *authentic*'" (as cited in Burke, 1994, p. xix).

Alternate assessments range from such activities as graphic organizers (mental maps), essays, learning logs, journals, portfolios, and projects to performances and exhibitions. Such assessments focus on student processes, products, or performances (Worthen, 1993). These learning/assessment activities may at times be done individually or cooperatively and usually entail some form of on-going self-assessment. It is evident from the multiplicity of assessment options that alternate assessments follow MI Theory and have many of the motivational advantages of MI Theory.

Alternate assessments show what students can do with knowledge in context, and such tasks focus on understanding and transfer of understanding into meaningful tasks as opposed to mere textbook knowledge (Wiggins, 1996). Archbold and Newmann (1988, p. 3) as cited by Burke (1994, p. xv) contended that students "'must also be involved in the production, not simply the reproduction, of new knowledge . . . because this requires knowledge integration.'" When students are able to demonstrate a sophisticated understanding by applying acquired knowledge to construct a solution or perform a meaningful task, then they gain self-confidence and a feeling of competence.

Alternate assessments also build in the competency factor through rubrics, the scoring criteria or benchmarks that set the standards for acceptable performance. Rubrics give examples and explicit definitions of particular skills, strategies, and knowledge as to what the learning activity will be judged. Burke (1994) stipulated that the key to any effective performance is setting the criteria in advance. She continued by stating, "These standards provide a benchmark whereby students see examples to which they can compare themselves" (p. 59).

Many researchers agreed that criteria for assessments need to be set in advance so that the students can apply them as they proceed and become self-regulated learners (Worthen, 1993; Dev, 1997; Wiggins, 1997). Likewise, when students know exactly on what they are being judged, they can then take ownership for their progress and growth; they then can assume responsibility for their success or failure.

Another important motivator in alternate assessments involves the creation of the criteria. Educational researchers concurred that students need to take part in the establishment of the performance criteria (Burke, 1994; Kallick, 1992). And, of course, developing the criteria also helps map out the conception of the activity. In this way the students are truly making decisions about their learning and also building their ability to critique their progress as well as to do the work (Burke, 1994). Burke (1994) stated that performance assessments are motivating by definition since they involve active, multi-tasked activities. In fact, the *performance* is what the students do. Burke continued to point out that the public exhibition, whether it is in the classroom or in a much larger setting, is one of the most motivational aspects of alternate assessments since students, as a rule, like to demonstrate what they have learned and can do.

This idea is backed up by Kallick (1992) when she explained that Freud illuminated the idea that "one's sense of worth comes from two life-sustaining drives—the capacity to love and to work" (p. 314). Kallick continued to say that "the most significant motivating force is the student's discovery of his or her capacity to do successful and good work. How one determines whether a student is doing successful and good work should be a collaborative process of standard setting" (p. 314). Certainly, the entire process of alternate assessments meets this goal.

Wang, Haertel, and Walberg (1994) asserted that classroom climate "increases student engagement, decreases disruptive behaviors, and makes good use of instructional time" (p. 76). Haertel et al. (1981) as cited in Wang, Haertel, and Walberg (1994) stated:

> "[C]lassroom climate refers to the socio-psychological dimensions of classroom life; including cooperation among teachers and students, common interests and values, the pursuit of common goals, a clear academic focus, well-organized and well-planned lessons, an appropriate level of task difficulty for students, and an appropriate instructional pace." (p. 76)

Such a positive classroom climate personalizes learning for both students and teachers. Newmann (1989) elaborated:

> Personalization builds social support; responsiveness to individual differences builds sense of ownership; and both are likely to enhance students' interest in, and valuing of, what is studied. Therefore, we would expect these reforms to enhance student engagement.
>
> Thus, educators should examine proposed interventions for the extent to which they channel the need for competence toward success in academic work, offer students increased access to extrinsic rewards, cultivate the study of intrinsically

> interesting and valuable material, provide consistent social support, and maximize student ownership of learning. (p. 36)

The goal for teachers, then, is to create strategies and a repertoire of tools that meet these criteria. Surely, teaching with the MI Theory, cooperative learning activities, and alternate assessments will fulfill these standards and enable our students to make a large positive investment in their learning.

Project Outcomes and Solution Components

As a result of the use of strategies to increase student motivation and engagement in their learning during the period of 2 September through 19 December 1997, the targeted students will show an increase in work completion, participation, academic responsibility, and achievement. In order to accomplish these objectives, the following processes are necessary:

1. Teacher materials and actions that foster motivation will be developed.
2. A series of cooperative learning activities that foster student engagement in their learning and include multiple intelligences strategies will be developed.
3. A series of individual learning activities that foster student engagement in their learning and include multiple intelligence strategies will be developed.
4. A series of authentic assessments that include multiple intelligence skills will be developed to foster student engagement in their learning.

The following are the components to the solution:

1. Students will choose their own cooperative groups for specified task activities. The purpose of these task groups is not only to complete assignments but also to

provide support for group members in understanding the material and to generate greater interest in the material.

2. Students will be randomly assigned to cooperative groups for specified task activities. The purpose of these task activities will be not only to complete the assignment but also to increase understanding of the material and to generate greater interest in the material.
3. Lesson plans will be adapted to incorporate the different intelligences and thereby make the cognition of the material more achievable for all students.
4. Varied authentic assessments will be implemented to tap student interest, to utilize multiple intelligences, and to improve academic achievement.

Project Action Plan

Once baselines had been established, each teacher researcher formulated a plan of intervention based on MI Theory, cooperative learning strategies, and alternate assessments. Since the academic first semester ended on 15 January 1998 with the week of January 5-9 designated for nine-weeks' tests and the week of January 12-15 for final semester examinations, the time frame for this intervention was 2 September through 19 December 1997. The sixteen-week action plans were as follows:

I. Teacher A (Living Science I; freshmen and sophomores; average to below average reading ability)

Pre-intervention baseline establishment: First two weeks of academic semester

A. Introduce academic material and curriculum expectations

B. Send letter to parents explaining project

C. Administer student questionnaires

D. Send parent questionnaires home

E. Evaluate pre-intervention questionnaires to establish baseline

Intervention Plan

Week 1

A. Brainstorm "successful cooperative groups"

B. Create ranking ladder of student responsibilities—task groups of three

C. Proofread partner's consumer letter—task group of two

D. Complete invention timeline in task groups of three

E. Begin Environmental Issues: Students will complete individual study sheets on appropriate environmental issues

F. Complete teacher observation checklist

G. Write teacher journal entry

Week 2

A. Continue environmental issues: Upon completion of study guides, video presentations, and class discussion, task groups of three will be formed to develop flash cards for vocabulary review

B. Administer teacher-made test (objective and essay) over environmental issues

C. Complete teacher observation checklist

D. Write teacher journal entry

Week 3

A. Begin scientific method unit: Students will complete reading, study guides and observe video on the scientific method

B. Complete student worksheet, "Organizing Data," in groups of three

C. Individually complete the observation lab using specific senses to identify four common solutions

D. Complete " Check Your Scientific Vocabulary" worksheet, in groups of three

E. Learn to complete the lab report forms and graph data with teacher-led temperature lab demonstration

F. Review vocabulary using teacher-made flash cards

G. Administer teacher-made quiz on the scientific method

H. Complete teacher observation checklist

I. Write teacher journal entry

Week 4

A. Complete lab equipment and safety study guide

B. Discuss and quiz over lab safety rules

C. Complete equipment identification worksheet and word scramble

D. Administer quiz on lab equipment

E. Begin metrics: In task groups of three, students will complete worksheet on different measurement systems

F. Make video presentation—"The Metric System"

G. Assign base group graphic organizer to illustrate the metric system

H. Complete worksheet—metric/international unit conversions

I. Complete teacher observation checklist

J. Write teacher journal entry

Week 5

A. Administer metric system quiz

B. Complete lab: In base groups, students will complete lab exercises using the graduated cylinders and the triple-beam balance

C. Review: In base groups, students will complete mind maps of the lab procedure unit

D. Administer teacher-made test on lab procedures

E. Complete chemistry study guide

F. Complete teacher observation checklist

G. Write teacher journal entry

Week 6

A. Go over matter, mixture, solutions, atoms, periodic table, symbols, formulas, equations

B. Complete teacher observation checklist

C. Write teacher journal entry

Week 7

A. Discover balancing equations, bonding, properties, states of matter, chemical and physical change

B. Complete teacher observation checklist

C. Write teacher journal entry

Week 8

A. Complete lab: chemical and physical changes using base groups of three with assigned roles of scientist, researcher, lab technician

B. Review with partners: develop tree to illustrate branches of chapter

C. Administer teacher-made nine-weeks' exam

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 9

A. Begin sensory evaluation in base groups—review of senses and how they work

B. Read and complete chapter questions

C. Complete individual lab on odor recognition

D. Complete lab in base groups—"Map Your Tongue"

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 10

A. Create web to review chapter in groups of three

B. Review terms as a class with flash cards

C. Administer teacher-made test

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 11

A. Begin digestion unit—"Science Rock " video—digestion

B. Complete chapter questions

C. Demonstrate—mechanical digestion, enzyme action, how bile and villi work

D. Complete "Measure the Intestine" activity in groups of two

Week 12

A. Make daily osmosis observations

B. Complete pie graph—time food takes to digest

C. Go over problems of the digestive system

D. Explain digestion projects using base groups (teacher-made rubric)

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 13

A. Complete work of digestion projects

B. Make group presentations

C. Complete teacher observation checklist

D. Write teacher journal entry

Week 14

A. Show video—"Magic School Bus"—digestion

B. Review digestion vocabulary

C. Administer teacher-made test

D. Begin nutrition unit

E. Complete chapter questions

F. Create a jingle about an assigned nutrient and present to class in groups of three

Week 15

A. Complete lab in groups of three—"Taking Food Apart"

B. Show video—"Reading Food Labels"

C. Calculate RDA

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 16

A. Review

B. Administer teacher-made test on nutrition

C. Complete metabolism chapter questions

D. Complete lab in groups of three—measure energy in food

E. Complete teacher observation checklist

F. Write teacher journal entry

II. Teacher B (British literature; college-bound seniors; some with Section 504 of the Rehabilitation Act of 1973, PL 93-112 designations)

Pre-intervention baseline establishment: First two weeks of academic semester

A. Introduce academic material and curriculum expectations

B. Send letter to parents explaining project

C. Administer student questionnaires

D. Send home parent questionnaire

E. Evaluate pre-intervention questionnaires to establish baseline

Intervention plan

Week 1

A. Begin reading and study of Brave New World (BNW)

B. Form cooperative task groups as appropriate

1. Student choice

2. Student preparation of various graphic organizers on BNW ideas/incidents

Week 2

A. Continue reading and study of BNW

B. Form small cooperative groups (4 to group)

1. By group, read, discuss, prepare, & present summary & reaction to different magazine or newspaper article of BNW incidents today

2. Provide class time to work together and 3 group presentations each day--Tuesday through Thursday

C. Assign BNW pair project (booklet on BNW likenesses today) and construct rubric for assessment of project

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 3

A. Complete BNW

B. Administer teacher-made test (objective and essay) over BNW

C. Give class time to work on BNW project

D. Give extra-credit options on BNW—individual ranking ladder of 7 BNW predictions with explanations/justifications for ranking

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 4

A. Collect BNW projects

B. Read and discuss Beowulf

C. Group by pairs for kennings--4 kennings per group

D. Construct rubric for assessment

E. View video on Chaucer and Chaucer's England

F. Read and discuss "Prologue" to Canterbury Tales

G. Complete teacher checklist

H. Write teacher journal entry

Week 5

A. Complete "Prologue"

B. Assign modern pilgrim project—students choose cooperative groups of 2 or 3

C. Construct rubric for assessment

D. Complete teacher checklist

E. Write teacher journal entry

Week 6

A. Read and discuss "Pardoner's Tale"

B. Play "Pilgrim Pursuit"—class divided into 4 groups (as review for test)

C. Complete teacher-made objective test over Chaucer

D. Use class time for pilgrim project

E. Complete teacher checklist

F. Write teacher journal entry

Week 7

A. Introduce Elizabethan literature

B. View video on Shakespeare and Shakespeare's England

C. Present modern pilgrim projects

D. Attend Chaucer dinner—prepared by food service students for my classes

E. Begin Macbeth—all students will have character roles in reading play aloud

F. Assign Elizabethan projects—an individually constructed project __

G. Complete teacher checklist

H. Write teacher journal entry

Week 8

A. Read and discuss Macbeth

B. Administer nine weeks' test

C. Complete teacher checklist

D. Write journal entries

Week 9

A. Finish Macbeth

B. Introduce Neo-Classical literature and Addison & Steele

C. View video—Costume Calvalcade (the what, how, & why of our clothing through the ages

D. Explain extra-credit option—a modern day "costume"

E. Assign essay test on Macbeth

F. Complete teacher checklist

G. Write teacher journal entry

Week 10

A. Present/display Elizabethan projects

B. Read and discuss Swift and Gulliver's Travels

C. Complete teacher checklist

D. Write teacher journal

Week 11

A. Complete objective test (teacher-made) over Gulliver's Travels

B. Introduce Romantic literature and listen to a recording of The Rime of the Ancient Mariner—discuss

C. Administer pair/share quiz over Rime

D. Collaborate in cooperative groups—inventions in the world

E. Complete teacher checklist

F. Write teacher journal entry

Week 12

A. Introduce Victorian literature

B. Begin to read and discuss Wuthering Heights (WH)

C. Assign individual collage project over WH

D. Construct rubric

E. Complete teacher checklist

F. Write teacher journal entry

Week 13

A. Continue WH reading and discussion

B. Complete teacher checklist

C. Write teacher journal entry

Week 14

A. Continue WH reading and discussion

B. Facilitate cooperative group activity on WH—influence of Heathcliff on 3 generations

C. Complete teacher checklist

D. Write teacher journal entry

Week 15

A. Finish reading and discussing WH

B. Test WH—teacher-made objective

C. Present individual collages to class

D. Begin reading and discussing "The Secret Sharer"

E. Complete teacher checklist

F. Write teacher journal entry

Week 16

A. Complete reading and discussing "The Secret Sharer"

B. View video: "The Secret Sharer"

C. Complete test over "The Secret Sharer" (teacher-made objective)

D. Read and discuss "The Lagoon"

E. Facilitate cooperate groups—compare/contrast "Lagoon," "Secret Sharer," and Rime

F. Complete teacher checklists

G. Write teacher journal entries

H. Complete culminating activity: Student exhibit of projects and cooperative groups' productions for parents and friends

1. Hold exhibit in high school classroom
2. Have students choose 2 or 3 "best" products to exhibit
3. Have students present/explain their products to parents and friends

4. Serve refreshments in classroom for students and parents

III. Teacher C (Freshman Title I English; some students with Section 504 of the Rehabilitation Act of 1973, PL 93-112 designations)

Pre-intervention baseline establishment: First two weeks of academic semester

A. Introduce academic material and curriculum
B. Send letter to parents explaining project
C. Administer student questionnaire
D. Send home parent questionnaire
E. Evaluate pre-intervention questionnaire to establish baseline information

Intervention plan

Week 1

A. Begin reading and study of Twenty Thousand Leagues Under the Sea by Jules Verne
B. Form cooperative task groups as appropriate
    1. Form student groups of 3-4 members
    2. Complete graphic organizers for important chronological events of Twenty Thousand Leagues Under the Sea
C. Use "SkillsBank '96" for computer lab work on reading comprehension
D. Use bonding activity along with the graphic organizers
E. Create rubrics for use with classes as to behavior and written work
F. Select a study buddy to help assist with classroom questions
G. Show video of *Twenty Thousand Leagues Under the Sea*

H. Start introduction to composition using the chalkboard and then move into the computer lab to practice

I. Complete teacher observation checklist

J. Write teacher journal entry

Week 2

A. Continue work on five-paragraph theme using the networked lab for word processing using Microsoft Word 7.0 focusing on outline development

B. Use "SkillsBank '96" for computer lab work on reading comprehension

C. Read: Read magazine, "The Tiger's Heart" by Jim Kjelgaard; and Voices, "Cat-About-Town" by James Herriot

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 3

A. Introduce composition work on body paragraphs and introduction and conclusion

B. Read: Read magazine, "Shipment of Mute Fate" by Les Crutchfield; and Voices, "Meadow Mouse" by Theodore Roethke, and "Unforgettable Grizzly Bears" by George Laycock

C. Administer teacher-made tests for evaluation of literature comprehension

D. Use "SkillsBank '96" for computer lab work on reading comprehension

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 4

A. Read: Read magazine, "The Court-Martial of Jackie Robinson"; and Voices, "Last Cover" by Paul Annixter

B. Administer teacher-made tests for evaluation of literature comprehension

C. Use "SkillsBank '96" for computer lab work on reading comprehension

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 5

A. Compose body paragraphs for poster theme

B. Read: Read magazine, language arts exercises

C. Use "SkillsBank '96" for computer lab work on language usage

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 6

A. Complete word processing of body paragraphs for poster theme with following quotation, "One look ahead is worth one hundred looks back."

B. Read: Read magazine, "On the Throne of Isis"

C. Use "SkillsBank '96" for computer lab work on language usage

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 7

A. Start reading and study of William Gibson's The Miracle Worker

B. Brainstorm for mind map of obstacles Helen Keller had to overcome

C. Use technology to develop PowerPoint literature review for title, author, plot, setting, and character

D. Use "SkillsBank '96" for computer lab work on language usage

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 8

A. Use cooperative groups for nine weeks' exam review.

B. Use graphic organizer (possibly ranking ladder) to have students rate the literature used so far

C. Finish The Miracle Worker and assign PMI chart for student evaluation

D. Administer first nine weeks' examination

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 9

A. Start work on next theme using student-chosen task groups to work on introductory, body, and concluding paragraphs

B. Read: Read magazine articles and exercises for outside reading

C. Introduce the Homeric epic in Insights literature book

D. Use "SkillsBank '96" for computer lab work on Study Skills Unit

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 10

A. Finish five paragraph theme based on The Miracle Worker

B. Read: Read magazine articles and exercises for outside reading; and Insights, Homer's Odyssey

C. Create graphic organizers to demonstrate knowledge of chronological events leading up to the Trojan War (You Are There—Project I)

D. Use "SkillsBank '96" for computer lab work on language usage and clear paragraph writing

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 11

A. Read: Read magazine articles and exercises for outside reading; and Insights, Homer's Odyssey

B. Finish creating graphic organizers to demonstrate knowledge of chronological events leading up to the Trojan War

C. Make a rubric to create new adventures for Odysseus

D. Use "SkillsBank '96" for computer lab work on language usage and clear paragraph writing

E. Complete teacher observation checklist

F. Write teacher journal entry

Week 12

A. Revise themes in computer lab making appropriate corrections

B. Read: Read magazine articles and exercises for outside reading; and Insights, Homer's Odyssey

C. Write paragraphs and design group cover sheet for the Trojan War report (computer lab)

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 13

A. Finish revising themes in computer lab making appropriate corrections

B. Read: Read magazine articles and exercises for outside reading

C. Show video of Homer's Odyssey

D. Photograph students at "Homer's Wall" giving their presentations on Trojan War timeline

E. Use "SkillsBank '96" for computer lab work on language usage and clear paragraph writing

F. Complete teacher observation checklist

F. Write teacher journal entry

Week 14

A. Create a model or map representing Odysseus' travels, using cooperative groups

B. Read: Read magazine articles and exercises for outside reading

Start Newspaper Workshop unit if finished with video of Homer's Odyssey

C. Use "SkillsBank '96" for computer lab work on language usage and clear paragraph writing

D. Complete teacher observation checklist

E. Write teacher journal entry

Week 15

A. Read: Read magazine articles and exercises for outside reading

Continue Newspaper Workshop unit

B. Make small group presentations of Odysseus' ten-year journey home to Ithaca

C. Develop PowerPoint literature review for title, author, plot, setting, and character on the Odyssey

D. Use "SkillsBank '96" for computer lab work on language usage and clear paragraph writing

E. Complete teacher observation checklist

E. Write teacher journal entry

Week 16

A. Read: Read magazine articles and exercises for outside reading and finish Newspaper Workshop unit

B. Finish Microsoft PowerPoint literature reviews for title, author, plot, setting, and character on the Odyssey

C. Make small group presentations of Odysseus' ten-year journey home to Ithaca

1. Use original artwork or a collage to represent temptations and struggles faced by Odysseus

2. Use computer clip art of Microsoft Screen Beans to represent the emotions Odysseus experienced

D. Use "SkillsBank '96" for computer lab work on language usage and clear paragraph writing

E. Complete teacher observation checklist

F. Write teacher journal entry

Methods of Assessment

In order to determine the effects of the intervention, teachers will keep records of the engagement of targeted students in their academic endeavors. Such participation indicators as bringing necessary materials to class, contributing to class discussion, completing assignments, using available class time to work on assignments, and cooperating with others on group tasks will be documented. These records will be in the form of teacher checklists and anecdotal journal entries. Student-generated rubrics and student self-assessments of accomplishments will also be a part of this record. Because student mastery of the task is the desired outcome, the use of traditional and authentic assessments will also measure student engagement and achievement.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

Once the three researchers had studied, identified, and documented the common problem of poor student engagement and had reviewed the literature relating to its causes and solutions, they began formulating the desired outcomes and the action necessary to achieve them. They brainstormed, planned, and developed teaching strategies and lesson plans based on the MI Theory, cooperative learning, and alternate assessments resulting in action plans appropriate for each site. In order to establish a feasible intervention plan, questionnaires were designed to gather baseline data. These questionnaires (Appendices A & B) were administered to both students and their parents. At the end of some projects throughout the intervention, students completed self-evaluations (Appendices C, D, & E) of their participation. A correlating questionnaire (Appendix F) was administered at the end of the intervention in order to determine the effectiveness of the plan.

Researcher A

Following the collection of baseline data through student and parent questionnaires (Appendices A & B), the teacher researcher began the intervention plan with a cooperative learning (CL) activity. The students were randomly divided into groups and asked to develop a ranking ladder by evaluating and prioritizing a list of student responsibilities. The activity served to acquaint the students with each other as well as to help them get back into the "school" mode after summer vacation. The development of the ranking ladder allowed the students to interact, cooperate, and arrive at a consensus with their peers. It also enabled the teacher researcher to make initial observations of their social and cooperative skills, which proved valuable for the implementation of a successful and effective action plan.

Throughout the intervention, a variety of CL activities and alternate assessments using Multiple Intelligences (MI) Theory were utilized to engage the students in their learning. CL activities included the completion a variety of graphic organizers, laboratory experiments, and group assignments. Mind maps, webs, and trees were used to allow students to creatively organize, illustrate, and present information. The organizers were then prominently displayed in the classroom.

For CL activities students were grouped both randomly and by student choice. During laboratory experiences, assigned roles of scientist, researcher, and lab technician were used. Each role entailed specific duties to fulfill for the successful completion of the lab exercise.

A major CL assignment completed during the intervention was the completion and presentation of a project on the digestive system. Students were given a list of suggested ideas on the topic (Appendix G) and allowed to choose just how their group wished to present the information. Students were reminded that the list included only suggestions and they were encouraged to develop their own ideas as well. Some of the suggested ideas were building a model of the digestive system, creating a poster illustrating how the digestive system works, choreographing a dance to show how food moves through the digestive tract, developing a game on digestion, writing a rap or jingle about digestion, and interviewing a nurse, doctor, or dietician about digestion. Before beginning the project, students received a rubric (Appendix H) explaining exactly how the project/presentation would be evaluated.

Several times during the intervention, students were asked to complete questionnaires (Appendix C & D) for their reactions to the activities/strategies used by the teacher researcher. Prompts were given and students were asked to complete the statements as they pertained to their learning experiences. Students completed PMI charts and were encouraged to include positive and negative feelings about the course and the learning strategies that they used. The teacher researcher was most interested in what the students felt was working best to help them achieve the highest level possible. Students were also asked to express their feelings about the use of cooperative groups and how the work was divided for the benefit of all members of the group.

To document student behavior and progress during the intervention, the teacher researcher kept a daily classroom log (Appendix I) and made weekly journal entries and reflections (Appendix J) on what strategies were successful and which ones still needed work. As part of the classroom log, a record of the academic progress of students was also maintained.

Researcher B

The first intervention activity students completed was an informal small group project involving the creation of graphic organizers to illustrate and explain Brave New World plot events. In addition to being an ice-breaking activity, this task also enabled students to enlarge their understanding of the studied material by using many of the seven intelligences and to hone their social and cooperation skills. This was followed by a paired activity in which the pairs prepared and presented a graphic organizer that explained and analyzed a news article of modern-day Brave New World events, an activity which required the students to interpret and apply knowledge gained in independent reading and class discussion. Throughout the intervention period many task groups were formed, both by the students and by the teacher. Some of the task groups consisted of pairs while others were groups of three, four, or five; some tasks were graded and some were not; most activities involved an oral presentation; and scoring rubrics generated with student input were provided for all major graded activities.

In order to stress the use of multiple intelligences, some of the intervention activities were projects or alternate assessments to standardized tests, and in many of these tasks the students were given a choice of activity. For instance, instead of the usual essay test over The Canterbury Tales, the students went on a modern pilgrimage to Canterbury (Appendices K, L, & M). Each student was allowed to choose a partner and the two wrote, in Chaucerian style, a 30-line description of a modern pilgrim on the way to Canterbury. The description had to present an overall positive or negative depiction of the chosen pilgrim and be based on the same criteria Chaucer used to present his

14th Century pilgrims. Then each pair presented the created pilgrim--orally and with appropriate clothing, appearance, and actions. Each student critiqued every presentation according to a rubric, and the pair that presented the pilgrim that was judged to be "truest to the Chaucerian spirit" received a free British dinner at the Dragon Inn (the high school food service lab) paid for by the rest of the students. (This "contest" consisted of the creation and presentation *of a pilgrim* rather than the telling of the best story by a pilgrim as in Chaucer's Canterbury Tales.)

Throughout the intervention period the students were allowed to negotiate due dates for assignments and projects, thereby giving them even more power of decision in the classroom. In addition, they periodically completed questionnaires (Appendix D) or discussed openly their feelings about the activities of the class.

Furthermore, a teacher's journal (Appendix J) was kept throughout the intervention period in which the teacher reflected on the positive, negative, and interesting aspects of the entire intervention plan and the targeted students' achievement and responses. Correspondingly, a weekly checklist of targeted behaviors (Appendix I) was kept on the students targeted for the intervention study. This teacher researcher found the keeping of this checklist to be tedious and not as informative as had been expected, possibly because this was a college-bound class and, therefore, the targeted behaviors of most students were positive.

Throughout the intervention period student work was displayed in the classroom, and at the end of the study a student exhibition was held in the classroom for the students to show their creations to their parents, siblings, and friends. The teacher researcher was not allowed to require attendance at this exhibition, but 18 people came to see the students' work. Every guest expressed positive feelings about the students' work and learning.

After completion of several projects, students reflected on their participation and progress. At times they completed self-analysis questionnaires (Appendix E), discussed group participation within the group, or took part in an open class discussion. At the end of the semester, all students completed a post-intervention questionnaire (Appendix F). All of these student reflections were used in analyzing the overall effectiveness of the intervention plan for increasing student engagement and academic progress.

Due to a lack of time, two activities in the action plan were not completed. Students did not complete the activity of matching inventors to their inventions and the extra credit option of choosing a modern day "costume" to illustrate and predict the distant future citizen's "judgment" of today's people according to this costume.

Researcher C

Targeted students were well informed that they would be part of a thesis research project, and parents or guardians gave written permission (Appendix N) for their young adults to be included as part of this research. The use of technology, a key component of this teacher researcher's intervention plan, was made more difficult by the instructor's having to learn a new job—that of freshman Title I English instructor. In conjunction with carefully monitoring student feedback, the teacher researcher incorporated strategies using CL, alternate assessment, and MI Theory while still fulfilling the district's expectations for the use of available technology in its freshman Title I English program.

Students were grouped both randomly and by student choice for all CL activities. With a daily class size of 12 or fewer, most activities involved groups of two or three students whose work soon adorned the classroom walls. The teacher researcher had to learn tolerance for "working" noise and patience for students who were learning to work things out for themselves.

Because technology tools facilitate learning, students had daily access to a networked computer lab where modern hardware and software were available to them for the creative study of literature in the classroom. Cooperative learning activities were based primarily on graphic organizers. They were assessed using rubrics, which were generated with student input and constructed at their reading levels.

In addition to using a Title I computer lab, the students incorporated into their studies the following technology equipment: a Hewlett-Packard (HP) laser printer, a Toshiba laptop computer, a Kodak digital camera, and an HP flatbed scanner. The teacher's weekly log documented that the researcher not only taught some new technology skills but also learned some new technology skills from the students reinforcing the idea that "none of us is as smart as all of us." It was quite a boost to the students' feelings of competency for them to be able to teach the teacher and this in turn led to a greater degree of engagement in subsequent learning activities.

Weekly during the intervention, the students created numerous graphic organizers using MI strategies. Each week or two the literary selection being studied was the model for the newest additions of student graphic organizers to the classroom wall décor.

In addition to graphic organizers, the students completed a major CL project (Appendix O) which included a hand-drawn, rather than a computer-generated, storyboard of six essential events from Homer's Iliad followed by an oral group presentation. Each group picked a name and insignia for its "military platoon" before making a ranking ladder. On the ranking ladder they put what the group thought were the six major events leading up to the destruction of Troy and the beginning of Odysseus' 10-year journey home to Ithaca and his family. Each group of "warriors" collaborated in the computer lab to make a cover sheet (Appendix P) for the report on the six major events. Individual warriors then typed their portion of the report; some had to do two or three sections due to the small size of the groups. After some teacher researcher coaching on proper stance, delivery, and articulation, the project culminated with each group's oral presentation and each group member elaborating on major events. Following this presentation, the teacher researcher photographed individual students (Appendix Q) and entire classes. These photographs were used for personalizing the storyboard and for future use in the students' four-year portfolios for the high school. This activity took far longer than expected, but it was the project that most students enjoyed.

The teacher researcher kept a weekly teacher journal (Appendix J) throughout the intervention period in order to reflect on the "pluses, minuses, and intriguing" (PMI) aspects of the targeted students' activities. In addition, the teacher researcher kept a daily student log (Appendix I) of the targeted students' attendance, behavior, and participation in class during the intervention period. These daily and weekly record-keeping tasks, although tedious at times, documented student behavior and progress during the action plan. A post-questionnaire (Appendix F) was administered at the end of the intervention period to see if students' attitudes toward class content and structure had changed during the 16-week intervention period.

Presentation and Analysis of Results

In order to assess the effects of the action plan for improving student engagement in their academic endeavors and the resulting academic growth, teacher checklists and anecdotal journal entries, student self-assessments of accomplishments, and traditional and alternate assessments were studied and analyzed. In addition, a post-questionnaire (Appendix F) correlating to the baseline student questionnaire (Appendix A) was administered.

According to data from teacher classroom logs and journals, all three teacher researchers found a definite correlation between student attendance and their engagement and resulting academic achievement. As illustrated in Figures 4.1 - 4.5, students with fewer absences made greater academic progress than those with many absences.

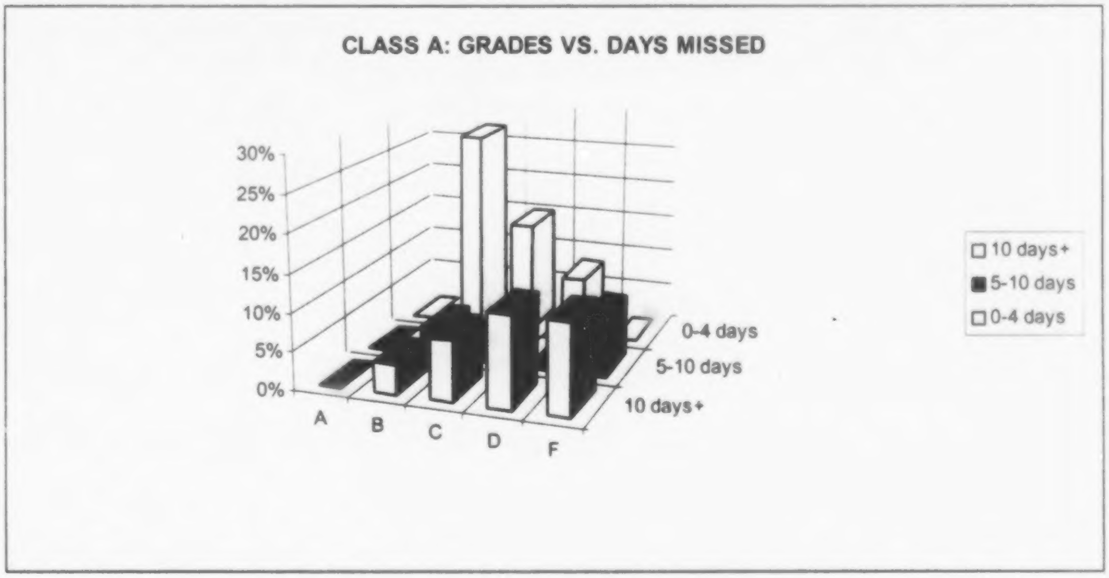

Figure 4.1 Freshman and Repeating Sophomore Living Science I

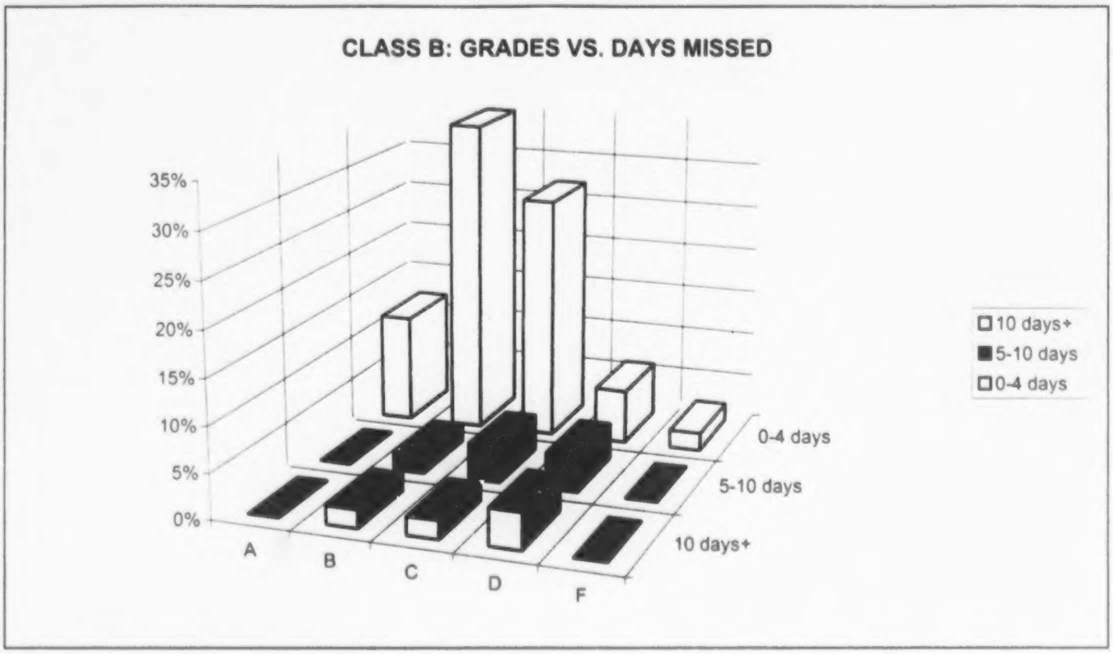

Figure 4.2. Senior British Literature

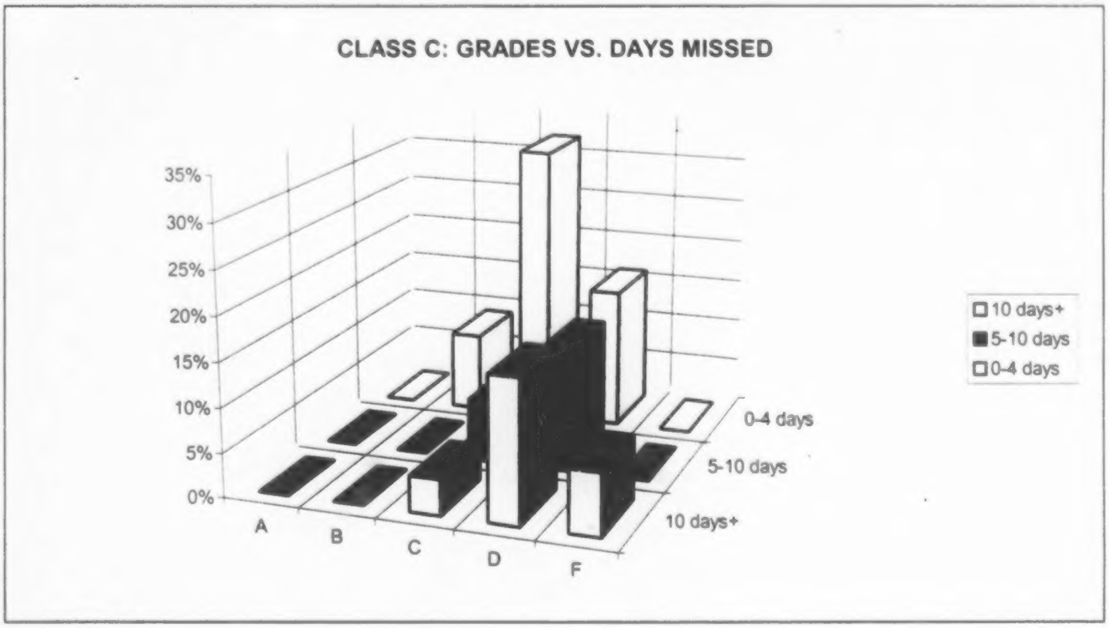

Figure 4.3. Title I Freshman English

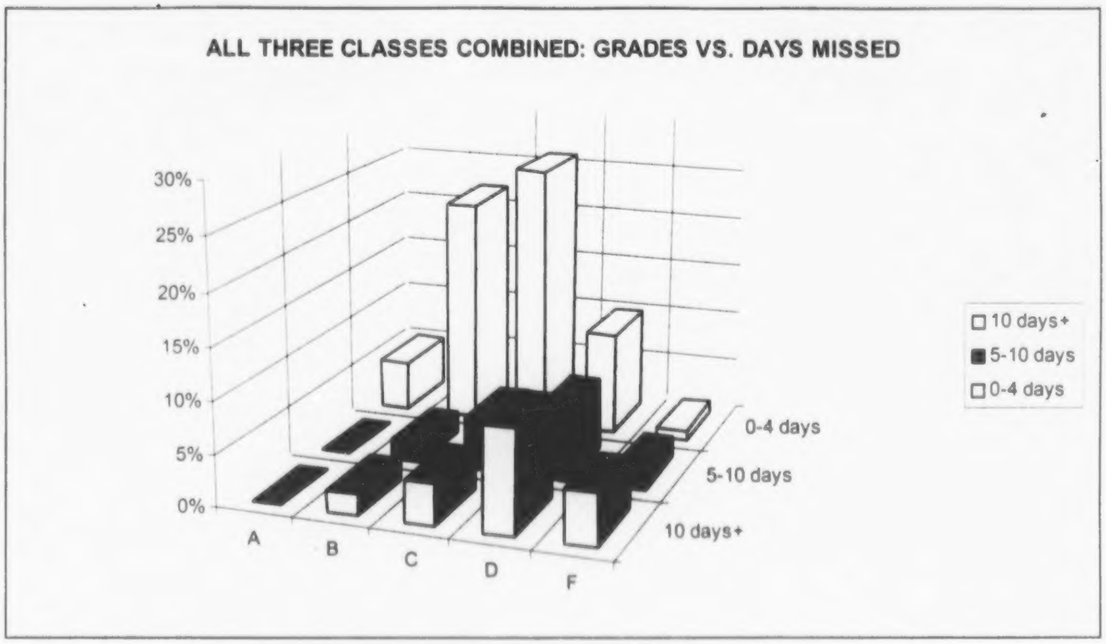

FIGURE 4.4. All three teacher researchers' classes combined

As Figure 4.4 illustrates, 42% of the students missed 0-4 days and earned A's, B's, and C's while only 15% of the students who missed 0-4 days earned D's and F's.

Next, 9% of the students who missed 5-10 days earned A's, B's and, C's while 12% of students missing 5-10 days earned D's and F's.

Finally, 7% of all students who missed more than 10 days still earned A's, B's, and C's while 21% of students missing more than 10 days earned D's and F's.

The number of A's, B's, and C's decreased as the number of missed days increased; conversely, the number of D's and F's increased as the number of missed days increased.

In conclusion, those students with the better attendance progressed at a higher level while those with poor attendance achieved minimally or at a level not attaining a passing grade.

(Total percentages do not add up to 100% because of the rounding of individual class percentages.)

Next, researchers noted that completion of homework, appropriate classroom behavior, and cooperation in group activities had a positive correlation in student engagement and achievement. All three researchers' classroom logs and anecdotal journals indicated a correlation between the aforementioned characteristics and academic success.

Other important behavioral patterns were also found to affect student involvement and achievement. First, at the completion of the first two weeks of class, all researchers noted that students complied with requirements regarding bringing necessary materials, staying on task, seeking needed help, and contribution to class proceedings.

Similarly, the data collected from student self-assessments and the post-intervention student questionnaires presented further support regarding gains in student engagement and achievement. As with the baseline questionnaires, students were told the data they were supplying was essential in the researchers' evaluation of classroom strategies and resulting student performance. The researchers stressed that students' comments, in conjunction with their objective responses, were very valuable in helping the teacher researchers evaluate the success of the classroom strategies. Figures 4.5 - 4.11 illustrate common ideas and concepts from the post-intervention questionnaire. Student comments on the questionnaires definitely substantiated the value of MI Theory, cooperative groups, and alternate assessments in increasing student engagement and academic growth.

Figure 4.5

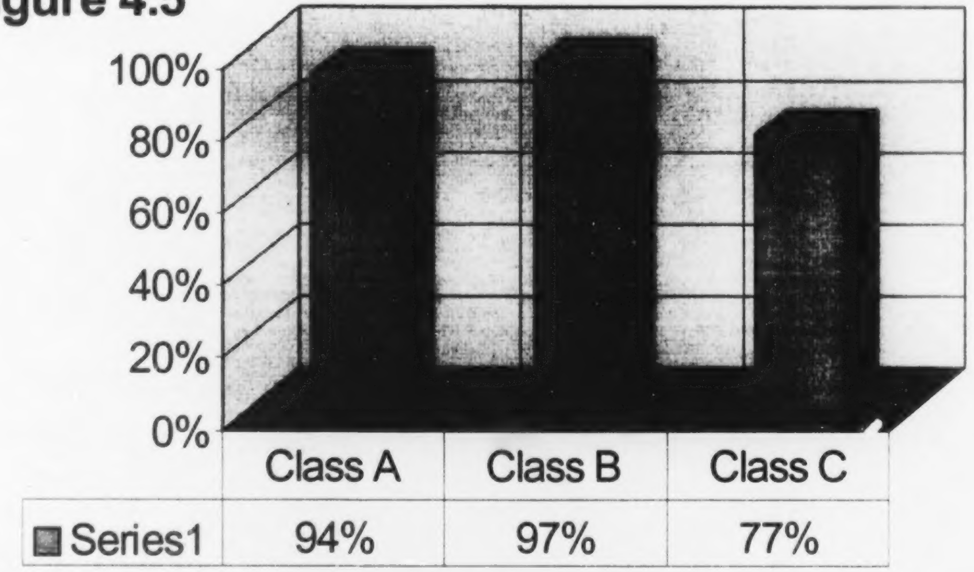

Figure 4.5. Questions #1 and 3: The individual and group projects/activities allowed me to be creative and to use my personal strengths to understand the material and/or earn a good grade.

Figure 4.6

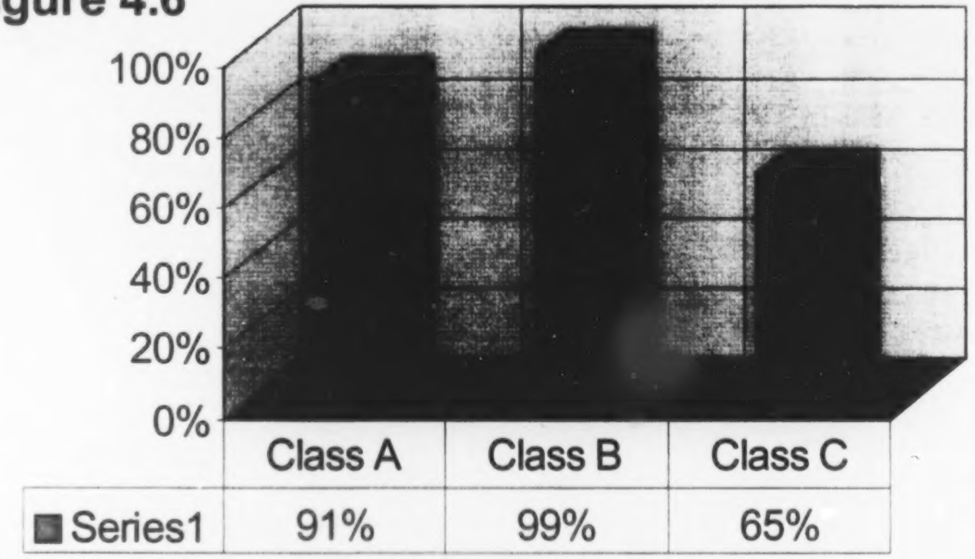

Figure 4.6. Questions #2 and 5: The projects/activities enabled me to use factual information and concepts I learned for better understanding of the studied material.

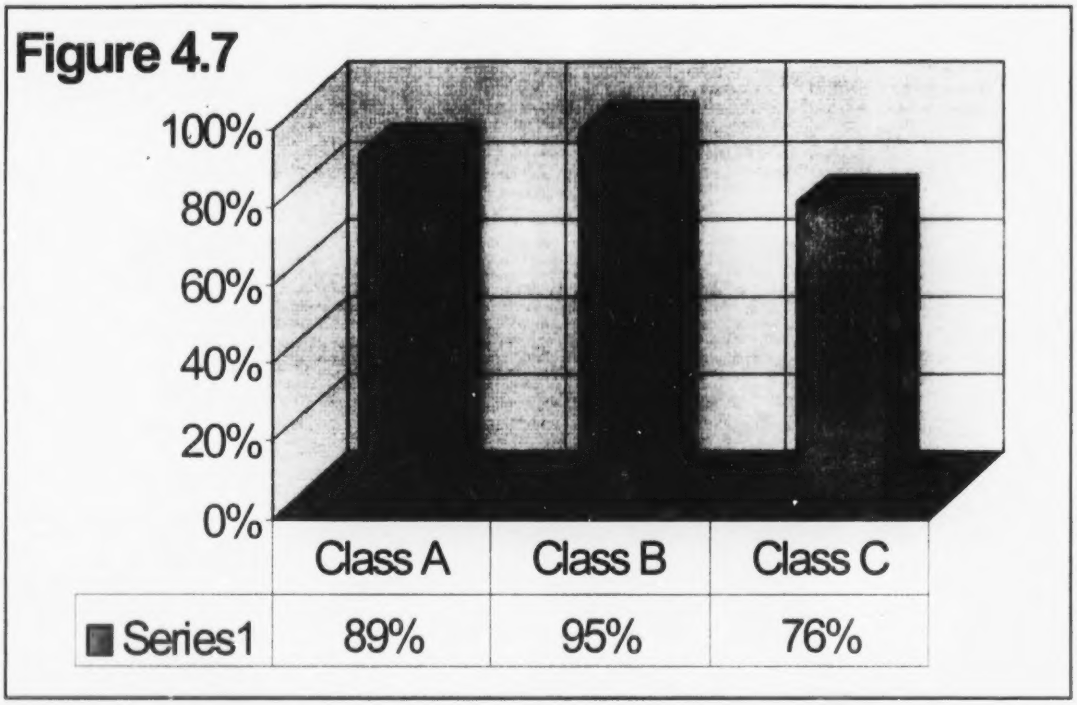

Figure 4.7. Questions #4, 6, 7, and 8: The projects/activities were interesting and good alternatives to standardized tests and study guides.

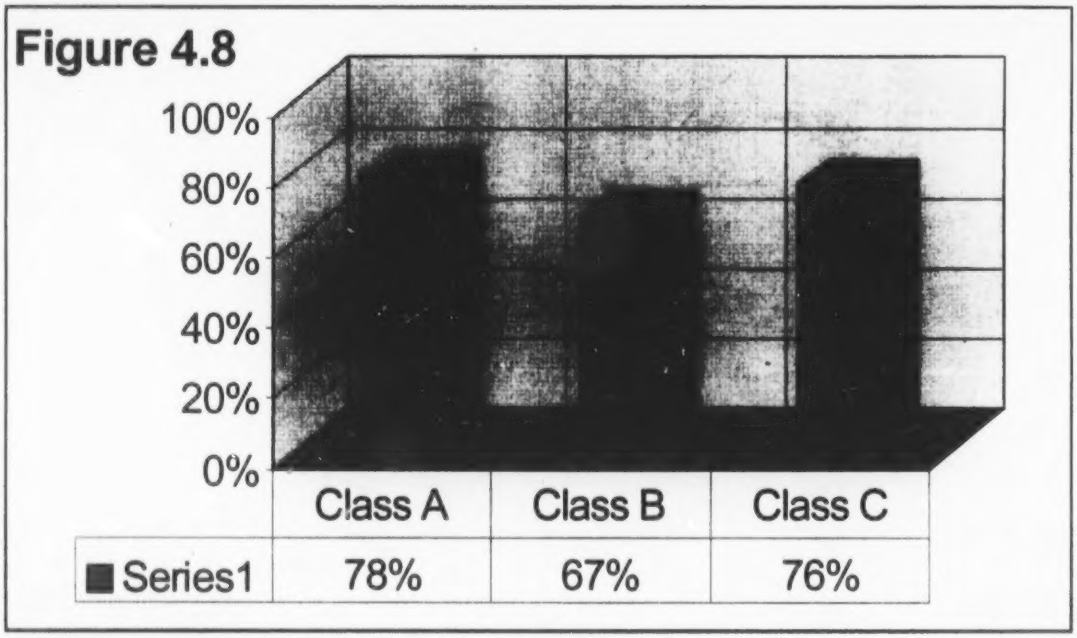

Figure 4.8. Questions #9-11: I preferred group projects/activities because I was better able to use and/or demonstrate knowledge gained in the class.

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Figure 4.9

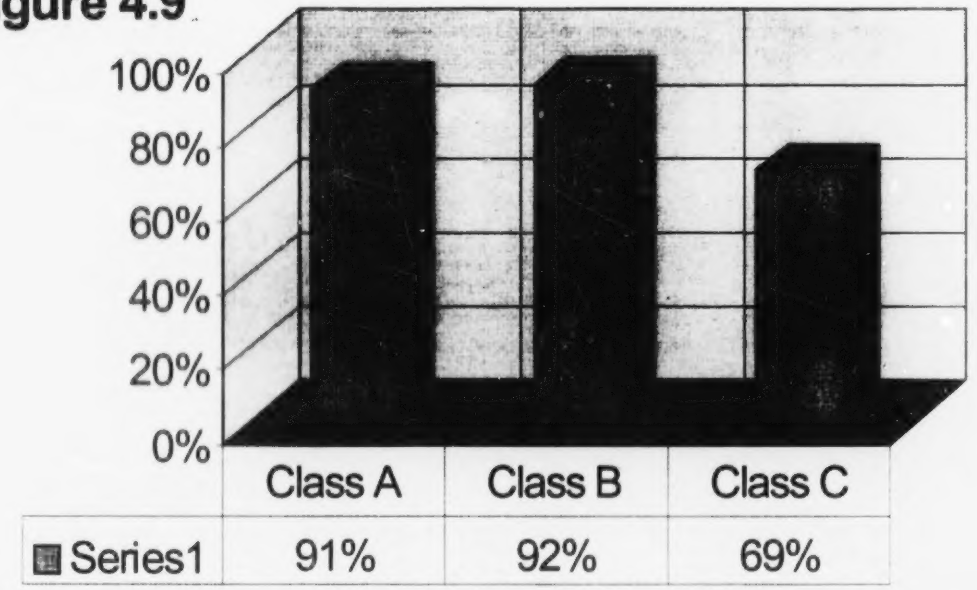

Figure 4.9. Question #13: The rubrics for the projects/activities helped me do better because I new the content/grading criteria.

Figure 4.10

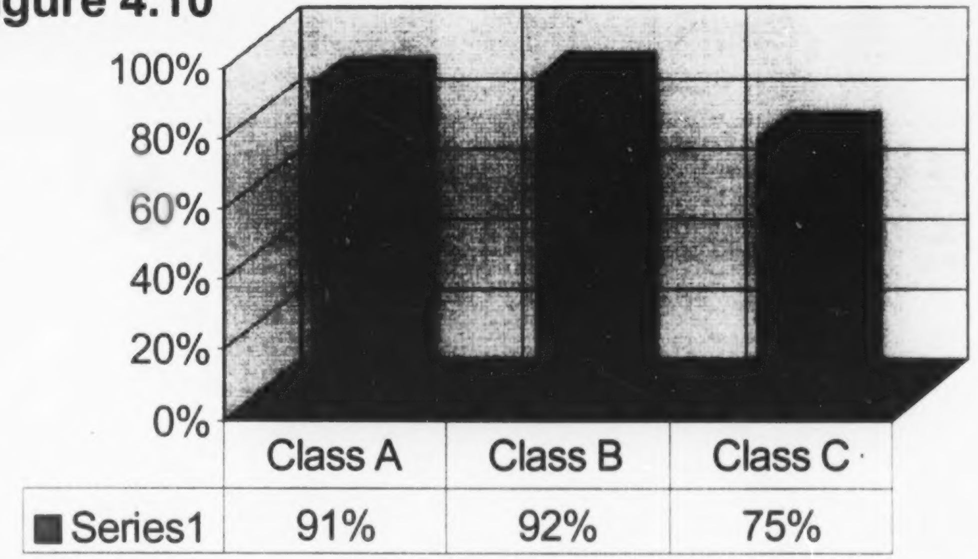

Figure 4.10. Question # 15: I enjoyed listening to my classmates' presentations and hearing/seeing their ideas/interpretations.

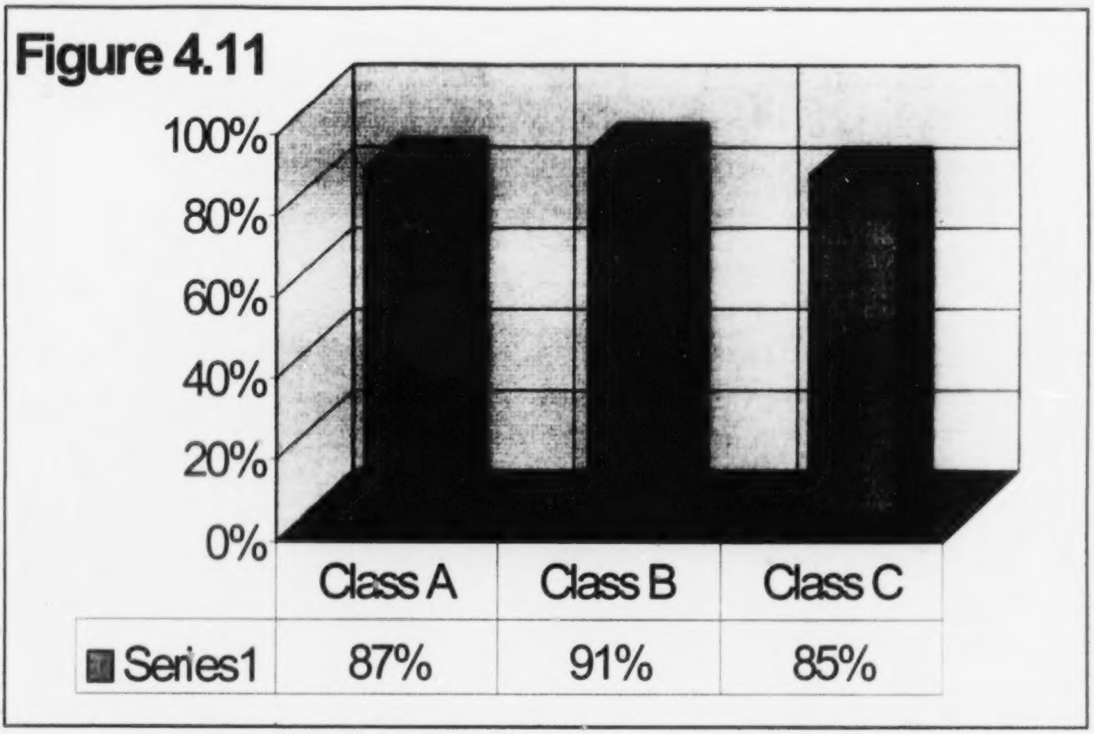

Figure 4.11. Question #20: I feel that I participated more in class because of the projects/activities.

Conclusions and Recommendations

Based on the presentation and analysis of data collected throughout the intervention period, the students showed a more positive attitude toward the work because they were engaged and this led to marked academic success. This behavior was quite obvious in class participation, enthusiasm, and various reflections, questionnaires, and grades.

To draw meaningful conclusions, the teacher researchers had to re-examine the beginning baseline data. However, after considering this data, the researchers deemed the establishment of an accurate baseline for student engagement and motivation to be a moot point in their action research plan. They felt this way because all the students were new in their classes and discovering a true evaluation of their motivational stance toward school was extremely subjective. The students' and their parents' responses to the baseline questionnaires were thought to be colored by what both students and parents thought the researchers were looking for or what they thought their proper responses should be. In addition, as the action research progressed, the researchers realized that the pre-intervention questionnaire could not be repeated at the end of the research period to draw a before and after comparison. This was considered true because of the many questions concerning factors over which the researchers had no control and, therefore, could not be used to measure increased engagement. The researchers recommend that future research be based on student traits that are more easily measured by classroom behavior and academic results. Also, if student academic engagement and progress could be measured over a longer period of time (two semesters rather than sixteen weeks), the results would be more accurately validated.

Second, the students' actual behaviors and responses in the classroom and their class preparation and their reflections on various data-gathering instruments seemed by far the best evaluators of student engagement and its related academic success. All researchers found that students preferred to be actively engaged in their learning, a factor which results in motivating students to try to excel. The aforementioned graphed behaviors and attitudes and student anecdotal comments definitely show that most of the students appreciated the opportunity to be creative, to present their knowledge and understanding in a way that is individually best (personalized) for them. This need was obviously met by making alternate assessments available to students and also by having these choices based on Multiple Intelligences Theory.

Likewise, the students obviously enjoyed sharing their learning with others, both in the giving and the receiving modes. Most students voiced obvious preference for cooperative learning opportunities and felt these instructional techniques allowed them to gain both knowledge and understanding and to transfer their learning to other students, situations, and occasions.

The students also felt they had more control over their education when they had rubrics by which to gauge the requirements and evaluate their progress. Most students commented that the rubrics were important in their knowing what they needed to *do* in order to be successful. In addition to this, letting students negotiate due dates for some projects or assessments proved to be another powerful motivator for success.

Allowing all students to learn and demonstrate their learning in their own special ways through the structuring of various learning opportunities based on the MI Theory and providing academic and social situations for students to interact and learn from each other result in students that are empowered in their own learning and feel academically and socially competent. Lowan (1990) stated that teachers can enhance or reduce the amount and kind of motivation students bring to classrooms. With the creation of a positive classroom climate filled with strategies and a repertoire of tools that meet the above criteria, student engagement was enhanced in all three classrooms. Surely, teaching with the MI Theory, cooperative learning activities, and alternate assessments has enabled these students to make a large positive investment in their learning.

All three teacher researchers feel that the Action Research Project has had a profound effect on their personal teaching philosophies, their classroom strategies, and their students' engagement and academic growth. By studying and evaluating the growth of the targeted students, the teacher researchers gained valuable information on all students. Certainly, the CL activities and alternate assessments based on MI Theory have now become an integral part of each teacher's repertoire. The best endorsement of this project is that all three researchers continue to use the same strategies, at times modified or improved, in their classrooms even though the Action Research Project has been concluded.

Because many of the activities entailed new teaching strategies for the three teacher researchers, they found it was necessary to practice "selective abandonment" of some planned lessons. However, they feel that with some fine-tuning and practice, the time constraints can be overcome. They further feel that at times it is more beneficial to "abandon" some material in favor of an in-depth study of other material. In addition, even though the keeping of the classroom behavior logs was very time-consuming, the teacher researchers felt they were useful in documenting some student behavioral patterns. The logs would have been more informative if the noted behaviors were more closely related to specific academic tasks. These researchers also recommend that frequent short CL activities and alternate assessments based on MI Theory be interspersed throughout each grading period to lead to more student enjoyment, engagement, and academic progress.

These three teacher researchers certainly feel they have made positive contributions to staff development at their school. All three have learned that other teachers are emulating many of the strategies they have incorporated into their teaching practices. Without a doubt, a large number of students at their school have benefited from the action research plan. Just as a pebble dropped into the water causes ripples to continue to spread in all directions, the knowledge and skills gained in this project have had a similar ripple effect and have transformed the lives of both teachers and students.

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Appendices

Appendix A

Student Questionnaire

For the following seven questions, mark the letter of the selection that best identifies you.

1. I tell my parents what I did at school ____________ a week.
   A. 5 days, B. 4 days, C. 3 days, D. 1-2 days, E. no days

2. I have a part-time job on school nights.
   A. true, B. false

3. I work ______ hours a week in my part-time job.
   A. 30+ hours, B. 20-29 hours, C. 15-19 hours D. 8-14, E. less than 8

4. I usually work ______ on school nights.
   A. later than 12 AM, B. until 10 PM, C. until 9 PM, D. until 8 PM, E. until 7 PM

5. I spend approximately ______ hour(s) a night doing homework.
   A. 4+ hours, B. 3-4 hours, C. 2-3 hours, D. 1-2 hours, E. less than 1 hour

6. I spend approximately ______ a night watching TV/playing video games/socializing with friends.
   A. 4+ hours, B. 3-4 hours, C. 2-3 hours, D. 1-2 hours, E. less than 1 hour

7. I have weekly family chores on school days that I am responsible for that take approximately _____.
   A. 5+ hours, B. 4-5 hours, C. 3-4 hours, D. 1-3 hours, E. less than 1hour

For the following questions, mark A for true or B for false.

8. It is more important for me to get good grades than to be active in extracurricular activities.

9. I have a set time for doing homework.

10. I talk to my parents about school.

11. My grades are a fair assessment of what I have learned.

12. From what I say to my parents about school, they think I enjoy school.

13. My work experience is just as important as my schoolwork.

14. I have enough time to complete my homework.

15. I have too much homework assigned.

16. I am working up to my potential.

17. I feel that the school is preparing me well for college and/or work.

18. I do not have enough homework assigned.

19. I feel that when I put forth a good effort, I achieve good grades.

20. My parents reward me for earning good grades.

21. I feel my teachers are competent.

22. I feel that my teachers care about my progress.

23. From what I tell my parents, they feel that I think my teachers care about my progress.

24. I feel that group projects are valuable classroom learning experiences.

25. I am easily frustrated with many assignments.

26. I readily ask for help when I have a problem with schoolwork.

27. I enjoy challenging assignments.

28. I complete my homework assignments without being told to do them.

29. I finish tasks I have started.

30. I feel that I am able to show my individuality in my assignments.

31. I have a negative attitude about school.

32. My parents feel I spend enough time studying for tests.

Appendix B

Parent Questionnaire

For the following seven questions, mark the letter of the selection that best identifies your teen.

1. I ask my teen what he/she did at school ____________ a week.
   a. 5 days, b. 4 days, c. 3 days, d. 1-2 days, e. no days

2. My teen has a part-time job on school nights.
   a. true, b. false

3. My teen works ______ hours a week in his/her job.
   a. 30 +, b. 20-29, c. 15-19, d. 8-14, e. less than 8

4. My teen usually works ______ on school nights.
   a. later than midnight, b. until 10 p.m., c. until 9 p.m., d. until 8 p.m., e. no later than 7 p.m.

5. My teen spends approximately ______ hour(s) a night doing homework.
   a. more than 4, b. between 3 and 4, c. between 2 and 3, d. between 1 and 2, e. less than 1

6. My teen spends approximately ______ hours a night watching TV/playing video games/socializing with friends.
   a. more than 4, b. between 3 and 4, c. between 2 and 3, d. between 1 and 2, e. less than 1

7. My teen has family chores on school days that he/she is responsible for completing that take approximately _____hour(s) a week.
   a. more than 5 , b. between 4 and 5, c. between 3 and 4, d. between 1 and 3, e. less than 1

For the following questions, mark A for true or B for false.

8. It is more important for my child to get good grades than to be active in extracurricular activities.

9. My teen has a set time for doing homework.

10. My teen talks to me about school.

11. My teen's grades are a fair assessment of what he has learned.

12. From what my teen says about school, I feel he/she enjoys school.
13. My teen's work experience is just as important as his schoolwork.
14. My teen has enough time to complete his homework.
15. My teen has too much homework assigned.
16. My teen is working up to his/her potential.
17. From what my teen tells me, the school is preparing him/her well for college and/or work.
18. My teen does not have enough homework assigned.
19. My teen feels that when he/she puts forth a good effort he/she achieves good grades.
20. I reward my teen for earning good grades.
21. My teen feels his/her teachers are competent.
22. My teen feels that his/her teachers care about his progress.
23. I feel that my teen's teachers care about his/her progress.
24. I feel that group projects are valuable classroom learning experiences.
25. My teen is easily frustrated with many assignments.
26. My teen readily asks for my help when he/she has a problem with schoolwork.
27. My teen enjoys challenging assignments.
28. My teen completes homework assignments without being told to do them.
29. My teen finishes tasks he/she has started.
30. My teen feels he is able to show his individuality in his assignments.
31. My teen has a negative attitude about school.
32. I feel my teen spends enough time studying.

Appendix C

DIGESTION PROJECT ANALYSIS

WHAT WERE YOU SUPPOSED TO DO?

WHAT WAS YOUR FAVORITE PART?

WHAT WAS YOUR LEAST FAVORITE PART?

IF YOU DID THIS PROJECT OVER, WHAT WOULD YOU DO DIFFERENTLY? WHY?

DO YOU FEEL THE WORK IN YOUR GROUP WAS SHARED EVENLY?

WHAT GRADE DO YOU THINK YOU DESERVE AND WHY?

WHAT GRADE WOULD YOU GIVE TO EACH OF YOUR PARTNERS AND WHY?

COOPERATIVE LEARNING SELF-ANALYSIS

Name________________________________ Date________________

I . . . . .

1. listened to everyone without interrupting. Yes No
2. encouraged others to give ideas. Yes No
3. kept to the subject at hand. Yes No
4. felt I was listened to. Yes No
5. avoided talking to those in other groups. Yes No

My group . . . .

1. gave equal time to all group members. Yes No
2. learned from one another Yes No
3. kept to the subject at hand Yes No
4. criticized without put-downs. Yes No
5. avoided placing blame and making excuses. Yes No

thought the educational objective was:

Important Not Important Don't Know

I thought the social objective was:

Important Not Important Don't Know

I think this activity was worth:

Less time More time Just Right Amount

Do you feel you had a better chance to give your ideas than in a full-group critique, a worse chance, or did it matter at all? Please comment.

Please tell me what you learned from this activity and what you would have liked to learn but did not.

Appendix E

Name ____

1. This project (did, did not) allow me to be creative.

   How (or why not)?

2. This project (did, did not) enable me to use factual information I learned to illustrate/explain a concept/idea about Elizabethan society.

3. This project (did, did not) allow me to use my personal strengths which will help me earn a good grade.

   How (or why not)?

4. This project (was, was not) a good alternative /change of pace to a standardized test.

   Why or why not?

5. Completing this project (helped, did not help) me to better understand beliefs and/or ideas of the Elizabethan period.

6. I (prefer, do not prefer) such projects over standardized tests.

   Why or why not?

7. This project (had, did not have) educational value.

   Why?

8. This project (was, was not) enjoyable to complete.

   Why?

9. I (am, am not) pleased with how my project turned out.

   Why?

10. Most projects in this class (have, have not) helped my grade.

11. Doing projects (does, does not) make class and/or the subject matter more interesting.

    Explain your answer.

12. I (prefer, do not prefer) completing projects on my own rather than in a group.

    Why?

Below write any comments you have about projects in this class.

Appendix F

STUDENT POST-QUESTIONNAIRE

PLEASE CIRCLE YOUR RESPONSE TO EACH OF THE FOLLOWING QUESTIONS AND WRITE ANY COMMENTS OR EXPLANATIONS IN THE SPACES PROVIDED.

1. The individual and group activities (did/did not) allow me to be creative.

2. The activities (did/did not) allow me to use factual information and concepts I learned to illustrate or explain a concept or idea about this class.

3. The activities (did/did not) allow me to use my personal strengths which helped me to understand the material and /or earn a good grade.

4. The activities (were/were not) good alternatives to standard tests and study guides.

5. Completing the activities (did/did not) help me to better understand ideas of different topics in this class.

6. I (prefer/do not prefer) activities and projects over standardized tests.

7. The projects and activities (were/were not) enjoyable to complete.

8. Doing projects and activities (does/does not) make class or subject matter more interesting.

9. I prefer (individual/group) projects.

10. I felt I was able to better use the knowledge I gained in the class in (individual/group) activities.

11. I felt I learned or demonstrated the most knowledge/understanding in (individual/group) activities.

12. This class was of (more / less / average) enjoyment to me than most other classes I have taken.

13. The rubrics used for the projects (helped/did not help) me do better because I knew the content/grading criteria.

14. From my experience in this course, I (would/would not) recommend this class to another student. Why or why not?

15. I (did/did not) enjoy listening to my classmates' presentations and hearing/seeing their ideas.

16. I (learned/did not learn) more by working with a group on many assignments.

17. On group activities, all members usually (helped/did not help) on the assignments.

18. What activity do you feel was the best example of your knowledge/abilities?

19. What suggestions do you have for ways I as the teacher could have made the material more interesting and/or easier to understand?

20. I feel I participated (more/less) in this class because of the activities.

Appendix G

DIGESTION PROJECT IDEAS

You have been assigned to do a project on digestion. You may work alone, with a partner, or with a group of other students. Your project should demonstrate one or more of the following ideas:

-How food moves through the digestive system.
-The key function of each of the organs in the digestive system.
-How food is digested and absorbed and waste products are eliminated.

PROJECT SUGGESTIONS:

-Make a drawing comparing the digestive system to a factory, a recycling plant, or anything else—real or imaginary—that seems appropriate.

-Create a series of dance steps and movements to show food moving through the organs of the digestive systems

-Take a popular tune and write new lyrics to describe digestion.

-Use any 3-dimensional materials to make a model of the digestive system.

-Create a road map for one of your favorite foods moving through your body.

-Make a crossword puzzle using terms from the lesson. Reproduce the puzzle for the entire class.

-Write a poem, haiku, limerick, or sonnet to describe digestion.

-Cut out pictures from magazines that can be used to tell the digestion story. Arrange them in the correct sequence on a poster.

-Make a series a drawings showing the digestive system. These could be displayed on a flip chart, made into a gigantic filmstrip, or photographed and made into slides.

-Interview a nurse, doctor, or dietitian about the details of the digestive process. Tape record your interview or write it up into a newspaper or magazine-type article.

-Create a life-sized diagram of the digestive system. Trace the outline of your partner on a large sheet of paper. Then, sketch in the organs of the digestive system, to scale, arranging and labeling each part correctly. In addition, include an explanation of the function of each organ. Collect pictures of food items typically eaten and attach them to the diagram, beside the organ(s) in which they are digested.

-Create a digestive system board game by enlarging a diagram of the digestive system. After numbering each of the organs, create and number at least four questions cards to go with each organ. If salivary glands are numbered "1" on the game board, each of the four question cards that corresponds to them should also be numbered as "1." The answer to each question should be written on the back of the card.

-Feel free to come up with other ideas of your own, too.

Appendix H

DIGESTION PROJECT RUBRIC

CRITERION: CONTENT **NAME:** ____________

5	4	3	2	1
A 5-STAR DINING EXPERIENCE FULL UNDERSTANDING, DETAILED, ACCURATE, COMPLETE, CLEARLY PRESENTED	MEAT-N-POTATOES NEARLY COMPLETE INFO, INTERESTING, GOOD GRASP OF MATERIAL	A HAPPY MEAL SATISFACTORY, MOST MAJOR POINTS COVERED, BASIC CONCEPTS UNDERSTOOD	PASS THE ROLAIDS LITTLE UNDERSTANDING, FEW DETAILS, SKETCHY, INSUFFICIENT INFORMATION GIVEN	STOMACH PUMP! UNSATISFACTORY, INCOMPLETE AND INACCURATE INFORMATION GIVEN

CRITERION: PRESENTATION

5	4	3	2	1
M-M-M GOOD! SHOWS GREAT EFFORT AND THOUGHT, EXCITING, UNIQUE, IMAGINATIVE VISUAL AID	PRETTY GOOD! INTERESTING, SHOWS A LOT OF EFFORT, NEAT VISUAL AID	HO HUM SHOWS SOME EFFORT, ACCEPTABLE VISUAL AID	YUK! BLAH!! BARE MINIMUM DONE, UNORGANIZED, LITTLE EFFORT SHOWN	OH, GROSS!!! SLOPPY, MESSY, SHOWS NO EFFORT, NO VISUAL AID

CRITERION: WORK HABITS

5	4	3	2	1
CREAM OF THE CROP! WONDERFUL COOPERTION, EXCELLENT USE OF TIME, GREAT INTERACTION, ALL INVOLVED	TWO THUMBS UP! WORK WELL TOGETHER, GOOD USE OF TIME, WORK LOAD SHARED	OK USUALLY ON TASK, AN OKAY JOB	UGH! UNORGANIZED EFFORT, LITTLE ACCOMPLISHED, WORK UNEVENLY DIVIDED	BRAIN DEAD!!! TIME WASTED, WORK NOT SHARED, NOTHING ACCOMPLISHED, NOT READY TO WORK

COMMENTS:

GRADING SCALE:

________ TOTAL POINTS

14 - 15	A	EXCELLENT!!
11 - 13	B	GOOD JOB!
8 - 10	C	ACCEPTABLE
5 - 7	D	POOR WORK
4 OR LESS	F	UNACCEPTABLE

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Appendix I

CLASSROOM LOG--WEEK OF ____________

HOUR 1 2 3 4 5 6 INSTRUCTOR:	STUDENT 1	STUDENT 2	STUDENT 3	STUDENT 4	STUDENT 5	STUDENT 6	STUDENT 7	STUDENT 8	STUDENT 9	STUDENT 10	STUDENT 11	STUDENT 12
ATTENDANCE												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
BRINGS NECESSARY MATERIALS												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
COMPLETES HOMEWORK												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
STAYS ON TASK												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
SEEKS HELP AS NEEDED												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
CONTRIBUTES TO CLASS DISCUSSION												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
DISPLAYS APPROPRIATE BEHAVIOR												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
COOPERATES WITH OTHERS												
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												

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Appendix J

Week of ______________

Actions Taken:

Reflection:

PLUSES (+)	MINUSES (-)	INTERESTING (?)

Comments, Notes (Continued on back, as needed):

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Appendix K

The Canterbury Tales: A Modern Pilgrimage

Pilgrimage Directions:

1. In groups of 2, you will depict a modern pilgrim who will travel to Canterbury.
2. Write a 30 line description on the pilgrim, basing your description on the same criteria Chaucer used in portraying his characters in the "General Prologue."
3. Decide if Chaucer would approve or disapprove of this character based on the character's personal moral characteristics, reasons for the pilgrimage, physical characteristics, etc., and present your pilgrim accordingly.
4. Present your character to the class, appropriately dressed to represent/present your character.
5. The class will vote on the best/most "true to the Chaucerian spirit" description.
6. On October 17, we will have an English lunch in the food service dining hall with the winners. Lunches for the winners will be paid for by the rest of the class.

Pilgrims

teacher
fireman
TV evangelist
country singer
rap star
lawyer
college student
marine
sports star
housewife
movie star
basketball player

CEO
artist
biker
used-car salesman
anthropologist
travel agent
small business
owner astronaut
fast food worker
gambler
prisoner
police officer

nurse
Indian
dentist
cowboy
priest
mailman
tattoo artist
garbage man
judge
research scientist
chef
pilot

waiter
musician
clown
minister
psychic
southern
debutante
dancer
rock star
nun
construction worker

Appendix L

Canterbury Tales Dinner

When in fall the pilgrims start
To Canterbury and bare each heart,
Along the way they laugh and cry
And always to fool each other try.
Each name, each habit, each conversation
To others gives a big impression.
And when they return, each and every one,
The best description and the best fun
Will win a dinner paid for by all
Here in this tavern, in this very hall.

The Dragon Inn

For your jollity and pleasure
You are invited to a celebration dinner
In honor of the best Chaucerian character
On 17 October 1997
At The Dragon Inn (PTEC Food Lab)
At the dinner hour (A or B lunch)
Cost = $3.00
RSVP by 10 October to Martha Steele

MENU

Fish
English Chips
Cole Slaw
English Trifle
Beverage: The Dragon Inn "Wine"

Appendix M

THE CANTERBURY TALES: A MODERN PILGRIMAGE

Identity of pilgrim: ____

Names of poets: ____

Grade criteria:

1. Description meets minimum of 15 lines per poet. Yes_____ No_____

2. The portrait gives details from the following categories (four categories must be covered):

   _____ physical appearance

   _____ characteristic habits or actions in life and/or occupation

   _____ interests

   _____ purpose for pilgrimage

   _____ accomplishments or achievements and/or failures

   _____ moral nature or actions

   _____ overall manner of life

   _____ guilt/innocence of one of the Seven Deadly Sins

3. The portrait gives an overall positive or negative impression. Yes _____ No _____

   Support your answer by giving some details from the portrait.

4. The portrait consists of rhyming couplets. Yes _____ No _____

5. The verse flows on from line to line. Yes _____ No _____

6. All poets are dressed to accurately portray/present their pilgrim's intended overall characterization. Yes _____ No _____

Support your answer by giving some details from the portrait.

7. Each poet takes an equal part in presenting the pilgrim. Yes _____ No _____

Support your answer with facts.

8. What grade do you think this portrait and its presentation should receive?

A _____, B _____, C _____

Support your grade by giving specific reasons for your choice.

(A = 5 categories covered in #2; #4, 5, & 6 must be yes;
B = 4 categories covered in #2; #4, 5, & 6 must be yes;
C = 3 categories covered in #2; # 4 & 6 must be yes.)

When all pilgrims have been presented, look at your individual pilgrim portrait evaluation sheets and rank the overall quality of the portraits/presentations:

RANKING	NAMES OF POETS	IDENTITY OF PILGRIM
1st		
2nd		
3rd		
4th		
5th		

Appendix N

Saint Xavier University
Field-Based Masters Program
Consent to Participate in a Research Study
Academic Growth: Strategies to Improve Student Engagement in Their Learning

We are currently working on a Master's Degree of Arts in Teaching and Leadership through St. Xavier University, Chicago. Our topic of study is motivating students toward higher achievement in their academic studies. We will be concentrating our efforts during this first semester on strategies that will increase student engagement in their learning. In order to include your child in our research, we need your consent. If you have any questions, please feel free to call us.

Please give your permission by signing the release form printed below.

Thank you,

Sue Naffziger	347-4101, ext. 344
Martha Steele	347-4101, ext. 253
Bruce Varner	347-4101, ext. 248

I, the parent/legal guardian of the minor named below, acknowledge that the teachers have explained to me the need for this research and offered to answer any questions I may have about the nature of my child's participation. I freely and voluntarily consent to my child's participation and the use of my child's work in this study. I understand all information gathered during the research study will be completely confidential (or anonymous). I also understand that I may keep a copy of this consent form for my own information.

____
Name of Student Participant

______________________________ ______________
Signature of Parent/Legal Guardian Date

Appendix O

You Are There—Project #1

A Trojan War Timeline

Instructions:

Stage One—Classroom

1. Choose two or three other "soldiers" to join your platoon.

2. Find a corner of the room for your base of operations.

3. Choose a distinctive nickname for yourself and for your platoon.

4. Design an insignia or choose a graphic to be used for identification on all parts of the project.

Stage Two—Classroom

1. Make a chronological list of all events (major and minor) which preceded Odysseus' 10-year voyage home.

2. Decide which of these events were the six most important.

3. Use construction paper to create a ranking ladder of these six events.

Stage Three—Computer Lab

1. Use Microsoft Word to type each portion (length 150-200 words) of the history of the platoon during its 10-year tour of duty from Ithaca to Troy.

2. Use Cut and Paste to make one complete history of the causes of the Trojan War.

Stage Four—Classroom

1. Choose which events to illustrate for display on Homer's Wall.

2. Use blank sheets of typing paper and colored pencils, crayons or markers, to illustrate not only your presentation panel, but also one or two other scenes from the Iliad.

Stage Five—Classroom

1. Give two to three minute oral presentation representing a timeline of the events leading up to and including the rescue of Helen and the destruction of Troy

2. Photograph soldiers individually and as a platoon for publication in the civilian newspaper.

Appendix P

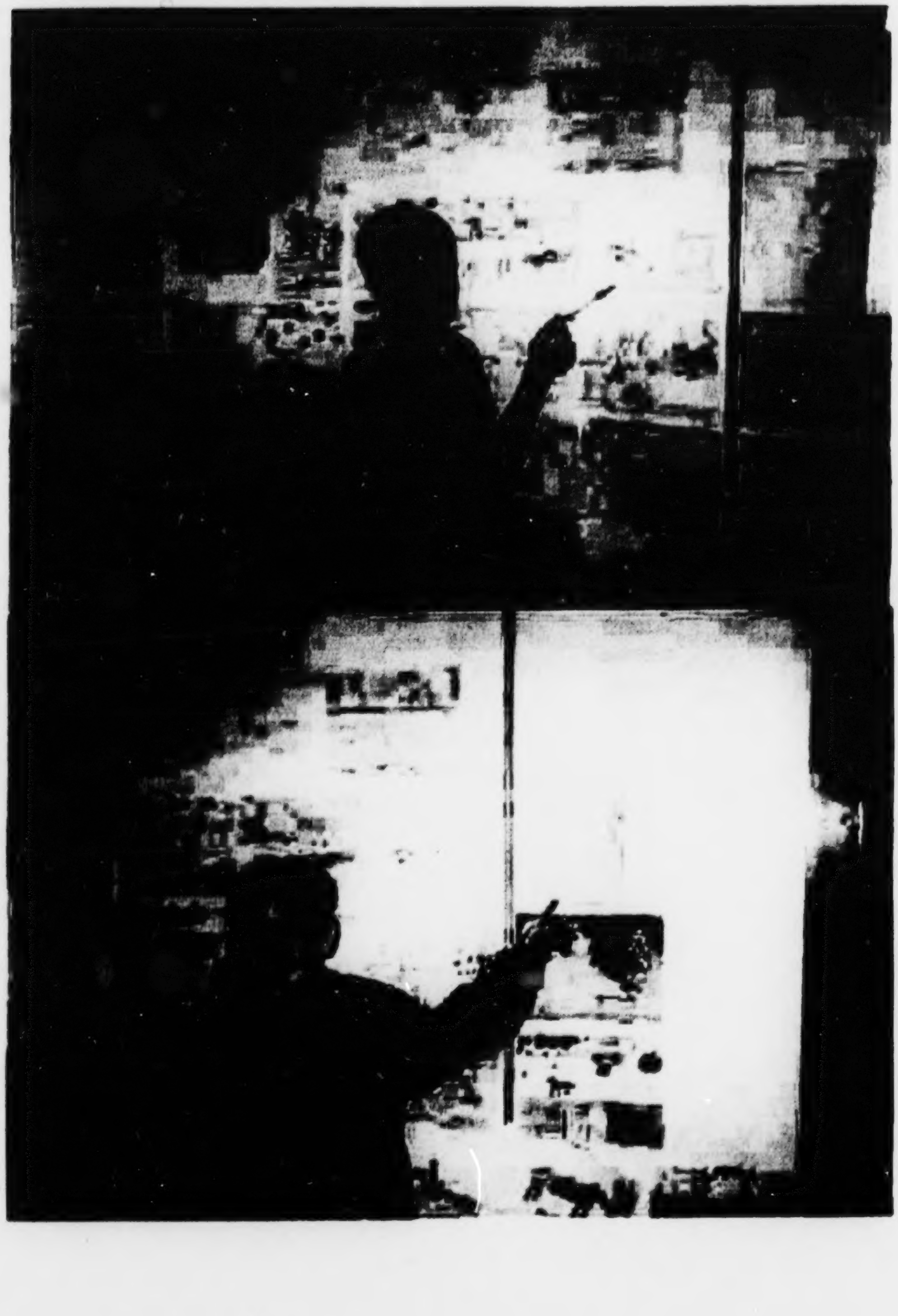
You Are There—Project I

Trojan War Timeline

Odysseus Defeats the Trojans and Rescues Helen

Tim "The Destroyer" N...
Kenzie "K-Dog" S...
Justin "The Undertaker" R...
Jason "The Rock" M...

Appendix Q



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